

00196US1.ST25  
SEQUENCE LISTING

<110> Vogeli, Gabriel  
<120> Novel G Protein-Coupled Receptors

<130> 00196US1 -

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<151> 2000-04-06

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<213> Homo sapiens

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## CC196US1.ST25

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<212> DNA  
<213> Homo sapiens

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<212> DNA  
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caacagccta caccattctg catttgactg ttttagttat tctccctct ggaaaggcat	600
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<211> 693  
<212> DNA  
<213> Homo sapiens

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<212> DNA  
<213> Homo sapiens

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tgctcagctc ctaaatttaa cagggacgg atctgagaaa ctgactccaa gttgtAACCT	180
cttgcttagt tttctttcta gggagatatac cgtctctcca aacctgtcga aatctaaatt	240
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caaaaaacaa aaaaataccc taccctaaaa gttggtaat gttcctgtaa aaagggttcc	600
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<210> 47  
<211> 729  
<212> DNA  
<213> Homo sapiens

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cctagttctt ttctttgtc gtttcttctt ttgtcttga tacaatcata cagcctctst 180  
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aacctgtaat acaactaata tttaaacttag tgttatTTT gagttcaact agacacatat 600  
aaaacatttc aagttagatg acacaaattc ctggggctgc cagtataaaa taaacagtcc 660  
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gcttcataa 729

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<211> 595  
<212> DNA  
<213> Homo sapiens

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gtttttcctt ccaactccct catttctgtg acctgccccaa taaccttacc aggaatccag 480  
cccccaaaagc agggtgact cctccctctg caatggacac cagggattca ggtcctgtg 540  
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<210> 49  
<211> 710  
<212> DNA  
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<210> 50  
<211> 550  
<212> DNA  
<213> Homo sapiens

<400> 50  
agatgcccag acacccatcac ttcaagcagac aaggggcaga gtcctggaaa atctaggcag 60  
ggaagacttg cgcctctaag agtaaaaaggc ctcccaagaga ggacatggat gaaaggagga 120  
ccacccatca atgccactct ccaaaggcagg aaacatccaa ataaaggatg ttgatccatca 180  
ggacccatc cttcatgag tgcttacaca actggatatat cctctccctgt ctctcccttc 240  
ggtagccaag accttataacc agtttgagta tcctttatcc aaaatgcttg gggtcagaag 300  
tgtttgaat ttcaagatatt tttaaatttt ggaatattta tatcataacct ctgggttcaa 360  
ccttccagat acaaaaatct ggagtccagt gaggatccctt tttgagtgtc atgtcagtgc 420  
tcaaaaaatgtt ttagatccatc gggcgatccatc gattcaggt tttgaaattt ggaataactca 480  
acctgtactc tctgtcccttgc ttctacccatc accagaccct ccccccacagg aatgaattta 540  
gatctgaaaa 550

<210> 51  
<211> 747  
<212> DNA  
<213> Homo sapiens

<400> 51  
tcatccctcg ctgtctatcc tgagctgtga gtttatccac aaaggaacag agctgaaatg 60  
aaacaatttc accacagtaa cttgttaatc gggcatccctt taagtatgtc ggatccatca 120  
ctggaaatcc ttttgaagac tctgaaatgtt ttctttaatc gtcatgagat ttttccaaac 180

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taagttcatg atatggattt ttttcactgt atcttagctta agtcacatTTT caattcaaaAT 240  
ctaacaccaaACT actgatggag ctggagctAG tgacttcagg caattggcat cTTTCGCTG 300  
aatacaaaca tcctatTTAA aagaccaaAC acalgaCTCC attcaaaaAT taaaacagTC 360  
atgtgttagtG aaacagcAAG aacacGGTCT gagaAACGTG tcCTTGACA cacAGCGTGA 420  
atgcactcac gcaaggCCTAG acggTGCggC TGCCGcacAC caggCCCTGT ggtacAGCCT 480  
gtcaattCCA ggccccAAAGC ctgcataCCA tggTGTGTG CGGGACGCTG CGGGCGGCTG 540  
tagcacaATG ctaagtatCT gtgtatCTCA acacAGAAGA ggtAGAGTA AGTACAGTAT 600  
tatgatcgTA CGGGACGCGT GTTGTACACA CAGTCTATCA ttgatGGAAG catcgTTATA 660  
tggcacatta ctgcactgTA aaaAGACACC aaACTTCGGC CGGCGCAGTG gctcatGCCT 720  
gtaatcccAG cactttggGA ggCTGAG 747

<210> 52  
<211> 695  
<212> DNA  
<213> Homo sapiens

<400> 52  
ttcttccttt tcctttcatt atcattttct ttttgtctca aaataatgaa aaatgcataa 60  
gggtctgtAG agagaagAAA atgccttgc ccatgaactt ctTgcaggta tttatcttgc 120  
ttctttatct tactaaaaAT agaattgAAA gttttcatt ttttgtttt caattttAGA 180  
ggatACAATG gagattcAGG aacgaatAGA aaatAGTTT aagtcttac tagaccAGT 240  
aaaAGGTAAG ttttcctact gttagattcCT gtatttgtaT ctggTTgtat ggcaataAGT 300  
tcgaaggTTCT ttcccttatt cccaagcccA atcaccCAGA gataagtaAG tagtttaAC 360  
actttggagt caataactcCT agatGCCACC taaacacata tggTgtgAA tgAAAatACA 420  
gataAAAAGT aatctttAAA catagggAAAT ggtgtaatCC atgtttttt gactttAAATT 480  
tttttgttat tttggataCC ttccatgtc agttatataAT accccattTA tttcaAGAC 540  
tgcgtaatAT tctatAGTAT tggTattAAAC tttttatgt tatcgcaatt ggtgacatAT 600  
tatgtatATG agttattttCT tctactgatG ctgaaatgaa tatcttggGA caaattgtTA 660  
ggggTattAT ttgagtcCTT cttgggatt AAATT 695

<210> 53  
<211> 735  
<212> DNA  
<213> Homo sapiens

<400> 53  
cttttgagga taaaaattc ctgcttactg tcgttataAC acggggatta ataaggcacCT 60  
tactggaATC tctcacctAC cataatttTA gtatgctATG tgagggatq aacagtctca 120  
cacatttaAT aatgactact catataatGC ttttaattgg taatgaccta tatgaaacat 180  
gatatAGAAA acacattACA gcttctCAA tgacccCTAT aagttaACCA attgcttagG 240

tttctgacaa atttgaatct ggcccatgc acctttgctg ggccccacaa aacaaggagg 300  
 tagattattt atgaaggtca accactctgg caatatcacc attaaaatac aagctcatct 360  
 gccccatagc tcctccatct tcaggccag gactctggat tggaatgacc tacctccaca 420  
 ttcaagtctg taagtcatta ggcacatcatcc aagatggtag atgatgaata aatggacaat 480  
 gacttaagct tttttactc tctcatccat tccaatgctt tcttcctgg tctttgctca 540  
 ttatccat gttatataat atatatttg aagaattcat ggcagtgata acaataatgg 600  
 ctacaatttt ttattaccta tgtatgccag gcattgtgct aagtgcctca ggtataagat 660  
 cttgttaaggg attgggttaca ttttacagat ggtaagactg ggattcagat gttagttgcc 720  
 tggtaagtc aataa 735

<210> 54  
 <211> 427  
 <212> DNA  
 <213> Homo sapiens

<400> 54  
 ctcttcctccc taggtggttt gctggcaatc tttggcattc cttagcttgtt ggaagtatca 60  
 ctccatctct gtcctgattt ctacatggtg ttcttcctgt gtgcatgtct gtctccaaat 120  
 ttccccattt tataaggaca cagtcatact ggattcgggc tcattctaaa gacctcattt 180  
 aatttaattc cataaaagacc ctatctccaa ataatgtcac attctgtggt actgggggtt 240  
 atgacttaaa catataaattt ttagggagac aaatttgaac ctctaacagt actgaacatc 300  
 caggatggaa gaacatggta ttaggttgag ccaaacadag ttgcttacgt tttggttttc 360  
 ctcaccagga caagaaaccc ccagtgcagg aaaattggag acatggaaaa cagggcttaa 420  
 gtaaaca 427

<210> 55  
 <211> 713  
 <212> DNA  
 <213> Homo sapiens

<400> 55  
 ttattataact caacactgct aggaaagaat cagtgtatgtt gaagatataat atatataat 60  
 ttgcttgtgtt atttgtgtgtt gagagacaca catagaaaaaa aagagagaga gaaatataattt 120  
 gggtgacact ggcttccttg aaaaaaggca gtttagtaac aatggccttt actagacaga 180  
 catgttagaa ggcagcagga gaaagggaaat gtggtatcag atatttctg taaaagggttt 240  
 gttattataata ttcatgtggc aaattgttagc tgatgtcaaa gttagttataa agcaagggaa 300  
 acacaattct tttacagcaa tggttaggtc taagaaacat aaaacaaataa cctggtaagt 360  
 accatgcata tatacatataca taaacaatca ataactcaca aaacattcac atatggcaa 420  
 cactgctttt cagtttatgc agtttatttt ttgttctttt taagttttt attatagtga 480

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atgtcttata	tttcattaaa	agtttgata	ttatatgtga	aacaacagtt	ctgataaagc	540	
aatatctaga	taaaggctat	tacttaccct	tctcaaatttgc	atagattttc	tccttgcac	600	
aagctctgat	ataaaaatatg	ataatttgtt	qaaaactttt	acacattcaa	aactaaatta	660	
tcatatattt	aatgagactt	tggtgtgtta	tgtgtgagtg	tgtgtctgtg	tgt	713	
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<211>	607						
<212>	DNA						
<213>	Homo sapiens						
<400>	56						
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agggaaataaa	aataatatgt	atgacgacaa	cagtagtcta	aaattcagga	gacagagaat	120	
ggaagtacat	tgttgcaagg	ttttctaata	cacatgtaca	aagtggtata	atgttacttg	180	
aaagataact	gtgataagtt	aaagacgtaa	tcaatgacac	tatataacc	actaaaataa	240	
tacaacaaag	gatatacggaa	atattttaa	aagtataatt	aacccaaaag	aaagcataga	300	
ggaaaaaggg	aacaaagaat	aatagatgga	ataaacagaa	aaaactagcc	agctggtaaa	360	
tttaaaaccg	atcatataca	tattcacatt	aaatacaaaa	agtttaaaca	cttcaaagtc	420	
aagtcaagg	tgtcatatttgc	gataaaaaga	aagactcaac	tatatgttac	ctataaggaa	480	
tgcaactttaa	atatacaaaac	atattaaaat	aaaaagatga	aaagtatata	acaatgttaa	540	
tactcatcaa	aataaagcta	atgaggctat	attcatatta	aaaagtaggt	tttaaagcaa	600	
agattac						607	
<210>	57						
<211>	746						
<212>	DNA						
<213>	Homo sapiens						
<400>	57						
tcaagtccat	gtttttacgg	aaagacccca	gttcctgcct	cttctatata	tttatctacc	60	
ttgtggtaaa	gagcatgtgt	gtgcaacacc	tttgcctgaa	atggtatgg	ttggcattaa	120	
tgaattgtgg	gtccattgaa	aagaaatctc	ctcttgcatttgc	tcgtgttatg	gacagttcaa	180	
ggtttgcctt	agaactaact	tcaagggaaaa	gttagcagaat	cgttaggaagg	gacaatcttgc	240	
ccttcagtc	caccctctgt	tccgggcagg	tctgggtggc	tatcttcttt	cgggggctt	300	
tccttgcaga	agaacttctt	cagcatgtcc	tggatttcct	tcttaatgg	cttgcacat	360	
tagccataga	cataggggtg	gatgcagcac	tgcaggaaga	aaagccagat	gattatgg	420	
atcacccact	gggttacctg	ggtttcgaca	tccacccaca	cggccaggac	tgctaaaaag	480	
cagtagggcc	ccagggatag	cacataggag	aaaatgtga	tgaagatcac	tttagcagct	540	
ttgcactgg	agcacctggg	cagaggaggg	ttgctgtgc	tgttacgacg	actgggtgg	600	
agctctccg	ggatgttac	tgcctcgac	tcatcctcac	tqaaattgat	gtcgcttca	660	

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ccaaacctcca tgtcatcttc acccaagtca atgctgact ggttacacc tcgtgcaccc 720  
ttgtctgact tcatgctgtt ctccctc 746

<210> 58 -  
<211> 638  
<212> DNA  
<213> Homo sapiens

<400> 58  
agtggaaaga ccacacctag gaaccgactc tagctttac caccctgtaa gcctgaggct 60  
cagttgctgt ccctggagaa cagaaaacat aatcatggct attctgaggg tcaggggcaa 120  
gtgctttgca agtgggattt tggtggcag tgggaggat tctggggttc actgtcatgc 180  
tagttgtta actgggcaat gcaaccgtgt aagtgtcagg aaaccctcaa taagacttag 240  
ccagaggcca ataagaagcc agcatttaca tcatgttctt ttcccttttg taacttagaa 300  
atttcgattt gcacactgat ttggccacc attcctggag agatctcgat ggatgtctc 360  
tttggtaacttctt tgaacttctt ggtgccagga ctggtcattt tgatcagtttta ctccaaaatt 420  
ttacaggtat gttttctgca agtgcgtcca ctgaacttca cccaggcttggggttatttc 480  
tgctagaatc tttagaatttg gggtcggaga acacctaaga gttcacgcca gctcaatctt 540  
gattcactgc ccaggctcac aacactgagg aaggagagga tttttttaga agttatatct 600  
ttgtgattat gtttttgct catcaactaaa gtaataact 638

<210> 59  
<211> 216  
<212> PRT  
<213> Homo sapiens

<400> 59

Asp Ala Phe Leu Phe Pro Cys Pro Glu His Gly Ser Val Met Thr Ser  
1 5 10 15

Gly Ser Cys Lys Glu Ala Gly Leu Arg Phe Phe Gln Ala Trp Gly Glu  
20 25 30

Val Gly Glu Glu Cys Val Leu Met Arg Arg Ala Gly Cys Ala Gly Ala  
35 40 45

Glu Ser Ser Thr Ser Leu Gly Ser Arg Cys Pro Thr Ser Pro Ser Leu  
50 55 60

Gln Pro Ala Leu Pro Lys Gly Ala Arg Ala Trp Pro Pro Leu Asp Met  
65 70 75 80

Ala Ser Gln Pro Phe Gly Lys Cys Gly Arg Pro Cys Cys Arg Ala Pro  
85 90 95

Val Thr Val Ser Val Trp Val Trp His Gly Trp Cys Ser Pro Ala Gln  
100 105 110

Asn Pro Ala Cys Asn Ser Thr Gln Ser His Ile Pro Gly Gly Gln Ala  
115 120 125

Leu Leu Leu Cys Ser Gln Met Pro Pro Ala Gln Lys Glu Asp Thr Pro  
 130 135 140

Ser Ser Ser Ala Glu Ala Ser Leu Thr Glu Gly Gly Cys Val Lys Ala  
 145 150 155 160

Ser Glu Ala Glu Leu Pro Ala Ala His His Gln Asp Ala Leu Glu Ala  
 165 170 175

Arg Ser Trp Ile Gly Ser Gly Cys Thr Glu Pro Ser Leu Pro Arg Asn  
 180 185 190

Thr Gly Asn Ala Lys Cys Ala Gly Gln Ala Val Gly Glu Gly Met  
 195 200 205

Ser Leu His Val Cys Ala His Cys  
 210 215

<210> 60  
<211> 204  
<212> PRT  
<213> Homo sapiens

<400> 60

Leu Glu Lys Gly Thr Lys Ser Gly Ser Val Phe Ser Ala Phe Phe Phe  
 1 5 10 15

Phe Phe Gln Ile Leu Val Val Ile Ile Gln Leu Phe Phe Leu Cys Met  
 20 25 30

Asp Phe Val Val Leu Arg Ala Ile Tyr Arg Ser Arg Val Gln Leu Leu  
 35 40 45

Lys Val Ile Tyr Ser Gln Phe Cys Ile Lys Pro Ile Ile Tyr Lys Cys  
 50 55 60

Ile Ser Ile Gln Tyr Arg Pro Gln Arg His Lys Ile Phe Phe Ser Leu  
 65 70 75 80

Leu Ser Cys Cys Pro Thr Asn Val Cys Arg Ile Tyr Gln Asn Ser Ile  
 85 90 95

Arg Lys Leu Leu Val Tyr Ala Leu Ala Val Leu Leu Ala Phe  
 100 105 110

Leu Phe Arg Val Val Glu Ile His Ser Phe Ile Asp Ile Lys Gly Thr  
 115 120 125

Val Lys Met Ser Leu Pro Val Asn Ile Asn Arg Leu Val Ile Leu Gly  
 130 135 140

Leu Gln Leu Asp Leu Leu Ile Cys Cys Ser Cys His Met Ser Thr Asn  
 145 150 155 160

Leu Ile Cys Ser Pro Phe Gln Lys Leu Asn Tyr Leu His Phe Phe Gly  
 165 170 175

Gly Ala Leu Val Trp Lys Val Arg Glu Ile Phe Thr Phe Thr Leu Phe  
 180 185 190

Phe His Phe Phe Leu Lys Thr Ser Ile Pro Pro Leu  
 195 200

<210> 61  
<211> 96  
<212> PRT  
<213> Homo sapiens

<400> 61

Val Glu His Ser Trp Pro Cys Ile Gln Tyr Ile Ser Trp Val Arg Pro  
1 5 10 15

Gly Val Pro Val Ser Ile Ser Val Asp Leu Leu Ser Met Leu Pro Val  
20 25 30

Ser Thr Trp Val Val Pro Trp Gln Glu Arg Cys Ile Cys Val Leu Thr  
35 40 45

Glu Val Pro Tyr Arg Cys His Phe His Cys Gly Ser Ser Asp Pro Gly  
50 55 60

Lys Asp Ser Phe Gln Gly Pro Gln Val Gly Ser Gly Gly Gly Ser  
65 70 75 80

Gln Thr Pro Asp Pro Val Thr Pro Ser Arg Pro Val Leu Glu Gly Pro  
85 90 95

<210> 62  
<211> 213  
<212> PRT  
<213> Homo sapiens

<400> 62

His Gln Ile Leu Leu Cys Cys Leu Arg Leu Gln His Ile Ser Met Ala  
1 5 10 15

Ser Ser Leu Gly Met Val Thr Val Ala Glu Leu Gly Gly Phe Val Leu  
20 25 30

Pro Ile Ile Ile Ile Thr Tyr Phe Thr Trp Lys Thr Arg Lys Ser Leu  
35 40 45

Trp Glu Phe Gln Val Pro Pro Arg Asn Thr Lys Glu Arg Lys Lys Ala  
50 55 60

Leu Arg Met Val Leu Met Cys Glu Val Val Phe Ile Val Cys Phe Thr  
65 70 75 80

Pro Tyr His Leu Asn Phe Pro Phe Phe Met Met Val Lys Glu His Val  
85 90 95

Phe Leu Asn Cys Ser Phe Ile Lys Ile Leu Cys Phe His Ile Ile  
100 105 110

Ser Leu Cys Leu Ala Asn Leu Asn Cys Cys Leu Asp Pro Val Val Tyr  
115 120 125

Tyr Phe Met Thr Ser Lys Phe His Asp Gln Phe Ser Asp His Gly Ser  
130 135 140

Leu Val Leu Gln Ser Cys Met Arg Cys Asn Asn Ser Thr Leu Glu Ile  
145 150 155 160

His Gln Arg Lys Gly Gly Ser Ser Asn Tyr Leu Ser Met Phe Glu Arg  
165 170 175

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Phe Gln Asp Asn Ile Ile Lys Leu Thr Arg Lys Ile Asp Met Leu Tyr  
180 185 190

Cys Ile Tyr Val Thr Leu Lys Ile Phe Leu Phe Phe Ser Phe Phe  
195 200 205

Leu Leu Tyr Phe Lys  
210

<210> 63

<211> 197

<212> PRT

<213> Homo sapiens

<400> 63

Cys Tyr Cys Ser Cys Ile Leu Leu Ser Val Cys Leu Leu Cys Pro Lys  
1 5 10 15

His Arg Leu Phe Gln Lys His Phe Leu Leu Ser Pro Phe Ser Leu Ala  
20 25 30

Glu Ser His Phe Ser Val Ser Ser His Ile Ser Tyr Leu Phe Leu Leu  
35 40 45

Lys Thr Arg His Phe Arg Cys Val Val Ala Val Gln Ile Leu Ile Leu  
50 55 60

Ser Pro Arg Ser Cys Cys Leu Ser Tyr Leu Tyr Met Cys Leu Val Thr  
65 70 75 80

Trp Leu Asp Tyr Phe Asn Asn Val Tyr Phe Pro Val Val Tyr Thr Ile  
85 90 95

Phe Tyr Thr Asn Val Thr Phe Pro Ile Val Gln Pro Trp Ala Trp Thr  
100 105 110

Glu Leu Ser Trp Asp Asp Ser Asn Phe Gly Ser Leu Leu Ser Leu Ser  
115 120 125

Leu Met Ser Leu Leu Ser Tyr Leu His Leu Leu Val Ser His Leu Ala  
130 135 140

Phe Asp Phe His Leu Phe Asp His Cys Leu Thr Val Phe Gly Ser Ala  
145 150 155 160

Leu Arg His Lys Val Phe His Ser Leu Ile Leu Asn Ser Asp Ser Tyr  
165 170 175

Lys Ser Gly Leu Gly Gln Ser Leu Arg Phe Val Leu Thr Leu Gly Gly  
180 185 190

Leu Lys Cys Phe Pro  
195

<210> 64

<211> 132

<212> PRT

<213> Homo sapiens

<400> 64

Pro His Ile Pro Phe Pro Ser Asn Pro Gly Asn Pro Lys Leu Phe Leu  
1 5 10 15

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Thr Ala Ser Phe Gly Ile Ser Ser Phe Trp Cys Gln Ile Ser Gln Gln  
20 25 30

Asn Phe Leu Pro Ile Ile Tyr Gln Cys Leu Ser Val Lys Phe Arg Phe  
35 40 45

Asn Phe Leu Leu Pro Arg Ala His Tyr Leu Ala Pro Ile Ile Pro Ser  
50 55 60

Pro Asn Ser Gln Thr His Lys His Ser Leu Leu Gln Leu Trp Ala Ser  
65 70 75 80

Tyr Leu Ser Pro Ser Gly Lys Lys Cys Cys Val Thr Pro Leu Ala Val  
85 90 95

Ser Val Asp Leu Val Gln Gly Arg Ala Pro Val Arg Ala Ala Gly Pro  
100 105 110

Ser Ser Leu Pro Gly His Gln Gln Ile Ser Thr Ala His Arg Cys Pro  
115 120 125

Gly Asn Gly Ser  
130

<210> 65

<211> 202

<212> PRT

<213> Homo sapiens

<400> 65

Ile Thr Ile Phe Gln Pro Leu Leu Gln Gly Leu Leu Cys Thr Leu  
1 5 10 15

Ser Leu Asn Ser Pro Ser Ile Cys Ser His Asn Pro His Asp Pro Gln  
20 25 30

Phe Tyr Asn Thr Thr Val Arg Ser Pro Lys Leu Pro Phe Ile His Phe  
35 40 45

His Ile Thr Ile Phe Gln Pro Leu Leu Gln Gly Leu Leu Cys Thr  
50 55 60

Leu Ser Leu Asn Ser His Asp Ser Ser Cys Thr Leu Gly Ser Ser Val  
65 70 75 80

Ser Pro Leu Leu Ile Ser Arg Val Pro Phe Cys Phe Cys Trp Leu  
85 90 95

Pro Tyr Lys Ala Cys Asn Ile Ile Ser His Phe Arg Lys Glu Leu Asp  
100 105 110

His Leu Leu Met Asn Pro Ala Phe Met Thr His Cys Leu Thr Cys Leu  
115 120 125

Trp Leu Cys Met Ser Pro Ser Phe Arg Phe Phe Leu Trp Lys Glu Arg  
130 135 140

Leu Pro Lys Ser Pro Ala His Gln His Tyr Lys Cys Met Gln Thr Ser  
145 150 155 160

Phe Ser Cys Leu Pro Thr Leu Lys Met Ser Lys Gln Phe Ser Lys Gly  
165 170 175

Glu Lys Ile Ser Ser Pro Pro His Thr Asn Tyr Leu His Asn Ser Val

180

185

190

Thr Phe Tyr Lys Pro Cys His Cys Ile Ser  
 195  
 200

<210> 66  
 <211> 221 -  
 <212> PRT  
 <213> Homo sapiens

<400> 66

Thr Val Leu Ile Met Ile Val Phe Val Ile Cys Cys Trp Gly Pro Tyr  
 1 5 10 15

Cys Phe Leu Val Leu Leu Ala Ala Arg Gln Ala Gln Thr Met Gln  
 20 25 30

Ala Pro Ser Leu Leu Ser Val Val Ala Val Trp Leu Thr Trp Ala Asn  
 35 40 45

Gly Ala Ile Asn Pro Val Ile Tyr Ala Ile Arg Asn Pro Asn Ile Ser  
 50 55 60

Met Leu Leu Gly Arg Asn Arg Glu Glu Gly Tyr Arg Thr Arg Asn Val  
 65 70 75 80

Asp Ala Phe Leu Pro Ser Gln Gly Pro Gly Leu Gln Ala Arg Ser Arg  
 85 90 95

Ser Arg Leu Arg Asn Arg Tyr Ala Asn Arg Leu Gly Ala Cys Asn Arg  
 100 105 110

Met Ser Ser Ser Asn Pro Ala Ser Gly Val Ala Gly Asp Val Ala Met  
 115 120 125

Trp Ala Arg Lys Asn Pro Val Val Leu Phe Cys Arg Glu Gly Pro Pro  
 130 135 140

Glu Pro Val Thr Ala Val Thr Lys Gln Pro Lys Ser Glu Ala Gly Asp  
 145 150 155 160

Thr Ser Leu Asp Gly Trp Asn Gly Gln Leu Met Lys Ala Asn Phe His  
 165 170 175

Ser His Tyr Leu Met Met Glu Asp Ser Gly Gly Glu Leu Trp Ile Ser  
 180 185 190

Ser Gln Thr Phe Lys Ala Arg Asp Gly Gly Leu Pro Leu Ser Pro  
 195 200 205

Asn Asn Ile Lys Asp Asn Val Pro Ser Phe Lys Lys Cys  
 210 215 220

<210> 67  
 <211> 595  
 <212> PRT  
 <213> Homo sapiens

<400> 67

Leu Glu Pro Thr Ser Lys Ala Pro Pro Gly Pro Gln Arg Pro Pro Pro  
 1 5 10 15

Leu Arg Pro Ser Pro Ala Pro Arg Gly Gly Arg Pro Pro Ala Pro Ser

20

25

30

His His Ser Asp Leu Ala Ala Ala Pro Gly Ala Gly Gly Asp Pro  
 35 40 45  
 Arg Pro Pro Leu Gly Pro Met Glu Glu Pro Gln Pro Pro Arg Pro Pro  
 50 55 60  
 Ala Ser Met Ala Leu Leu Gly Ser Gln His Ser Gly Ala Pro Ser Ala  
 65 70 75 80  
 Ala Gly Pro Pro Gly Gly Thr Ser Ser Ala Ala Thr Ala Ala Val Leu  
 85 90 95  
 Ser Phe Ser Thr Val Ala Thr Ala Ala Leu Gly Asn Leu Ser Asp Ala  
 100 105 110  
 Ser Gly Gly Gly Thr Ala Ala Ala Pro Gly Gly Gly Leu Gly Gly  
 115 120 125  
 Ser Gly Ala Ala Arg Glu Ala Gly Ala Ala Val Arg Arg Pro Leu Ala  
 130 135 140  
 Thr Glu Ala Ala Pro Leu Leu Ser His Gly Ala Ala Val Ala Ala Gln  
 145 150 155 160  
 Ala Leu Val Leu Leu Ile Phe Leu Leu Ser Ser Leu Gly Asn Cys  
 165 170 175  
 Ala Val Met Gly Val Ile Val Lys His Arg Gln Leu Arg Thr Val Thr  
 180 185 190  
 Asn Ala Phe Ile Leu Ser Leu Ser Asp Leu Leu Thr Ala Leu  
 195 200 205  
 Leu Cys Leu Pro Ala Ala Phe Leu Asp Leu Phe Thr Pro Pro Gly Gly  
 210 215 220  
 Ser Ala Pro Ala Ala Ala Gly Pro Trp Arg Gly Phe Cys Ala Ala  
 225 230 235 240  
 Ser Arg Phe Phe Ser Ser Cys Gly Ile Val Ser Thr Leu Ser Val Ala  
 245 250 255  
 Leu Ile Ser Leu Asp Arg Tyr Cys Ala Ile Val Arg Pro Pro Arg Glu  
 260 265 270  
 Lys Ile Gly Arg Arg Ala Leu Gln Leu Leu Ala Gly Ala Trp Leu  
 275 280 285  
 Thr Ala Leu Gly Phe Ser Leu Pro Trp Glu Leu Leu Gly Ala Pro Arg  
 290 295 300  
 Glu Leu Ala Ala Ala Gln Ser Phe His Gly Cys Leu Tyr Arg Thr Ser  
 305 310 315 320  
 Pro Asp Pro Ala Gln Leu Gly Ala Ala Phe Ser Val Gly Leu Val Val  
 325 330 335  
 Ala Cys Tyr Leu Leu Pro Phe Leu Leu Met Cys Phe Cys His Tyr His  
 340 345 350  
 Ile Cys Lys Thr Val Arg Leu Ser Asp Val Arg Val Arg Pro Val Asn  
 355 360 365

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Thr Tyr Ala Arg Val Leu Arg Phe Phe Ser Glu Val Arg Thr Ala Thr  
370 375 380

Thr Val Leu Ile Met Ile Val Phe Val Ile Cys Cys Trp Gly Pro Tyr  
385 390 395 400

Cys Phe Leu Val Leu Leu Ala Ala Ala Arg Gln Ala Gln Thr Met Gln  
405 410 415

Ala Pro Ser Leu Leu Ser Val Val Ala Val Trp Leu Thr Trp Ala Asn  
420 425 430

Gly Ala Ile Asn Pro Val Ile Tyr Ala Ile Arg Asn Pro Asn Ile Ser  
435 440 445

Met Leu Leu Gly Arg Asn Arg Glu Glu Gly Tyr Arg Thr Arg Asn Val  
450 455 460

Asp Ala Phe Leu Pro Ser Gln Gly Pro Gly Leu Gln Ala Arg Ser Arg  
465 470 475 480

Ser Arg Leu Arg Asn Arg Tyr Ala Asn Arg Leu Gly Ala Cys Asn Arg  
485 490 495

Met Ser Ser Ser Asn Pro Ala Ser Gly Val Ala Gly Asp Val Ala Met  
500 505 510

Trp Ala Arg Lys Asn Pro Val Val Leu Phe Cys Arg Glu Gly Pro Pro  
515 520 525

Glu Pro Val Thr Ala Val Thr Lys Gln Pro Lys Ser Glu Ala Gly Asp  
530 535 540

Thr Ser Leu Asp Gly Trp Asn Gly Gln Leu Met Lys Ala Asn Phe His  
545 550 555 560

Ser His Tyr Leu Met Met Glu Asp Ser Gly Gly Glu Leu Trp Ile Ser  
565 570 575

Ser Gln Thr Phe Lys Ala Arg Asp Gly Gly Leu Pro Leu Ser Pro  
580 585 590

Asn Asn Ile  
595

<210> 68  
<211> 201  
<212> PRT  
<213> Homo sapiens

<400> 68

Ala Ser Ala Ser Gln Ala Gln Phe Lys Lys Lys Met Phe Asn Leu Leu  
1 5 10 15

Leu Thr Tyr Phe Cys Lys Ile Leu Lys Ile Tyr Thr Ile Tyr Trp Leu  
20 25 30

His Asn Ile Val Lys Ala Leu Thr Ala Thr Lys Leu Tyr Ala Gln Lys  
35 40 45

Trp Leu Lys Trp Tyr Ile Tyr Ile Thr Tyr Ile Leu Leu Gln Phe Val  
50 55 60

Ile Glu Lys Asn Glu Met Lys Lys Val Lys Phe Gln Pro Gln Leu Cys

65

70

75

80

Phe Asn Asn Ile Gln Asp Leu Val Lys Leu Leu Lys Phe Leu Asn Ala  
 85 90 95

Tyr Phe Gln Phe Leu Tyr Leu Ser Arg Cys Arg Pro Val Lys Val Cys  
 100 - 105 110

Met Leu Ala Ala Ile Pro Glu Leu Tyr Phe Asp Ser Thr Asp Leu Ser  
 115 120 125

Cys Glu Gly Leu Trp Leu Cys Arg Ala Ser Gln Glu Thr Phe Glu His  
 130 135 140

Lys Val Ser Cys Thr Thr Pro Ser Ser Arg His Phe Trp Thr Pro  
 145 150 155 160

Gly Trp Ser Thr Pro Ser Ser Ser Gly Gln Ala His Cys Ser Asp Val  
 165 170 175

Trp Leu Thr Pro Thr Tyr Ala Pro Ala Val Pro Gln Gly Pro Cys Cys  
 180 185 190

Thr Val Val Phe Ile Tyr Phe Leu Arg  
 195 200

<210> 69

<211> 217

<212> PRT

<213> Homo sapiens

<400> 69

Arg Leu Lys His Ile Leu Pro Ser Ser Leu Arg Leu Ala Ser Lys Asn  
 1 5 10 15

Ala Phe Asn Trp Leu Asn Leu Arg Ile Ile Val Tyr Cys Cys Leu Gly  
 20 25 30

Ile Ile Glu Cys Cys Leu Leu Ile Lys Val Glu Phe Asp Pro Pro Arg  
 35 40 45

Leu Pro Leu Val Trp Val Gly Glu Gly Leu Gly Phe Cys Ser Phe Phe  
 50 55 60

Phe Leu Leu Ile Arg Ser Thr Asn Ile Tyr Cys Met Pro Met Gly  
 65 70 75 80

Gly Lys His Arg Phe Cys Gly Ala Ser Leu Tyr Tyr Leu Gly Asp Pro  
 85 90 95

Leu Ile Lys Leu Ile Lys Leu Gln Ile Gln Asn Ala Lys Leu Phe Leu  
 100 105 110

Arg Met Gln Ile Glu Gly Thr Leu Gln Leu Lys Asp Tyr Ser Leu Tyr  
 115 120 125

Asn Lys Tyr Ala Ser Gly Ala Tyr Cys Met Ser Gly Thr Leu Gly Pro  
 130 135 140

Val Asp Lys Val Met Asn Ala Ile Val Thr Leu Thr Trp Ile Leu Gln  
 145 150 155 160

Ser Ser His Phe Gln Lys Met Val Ser Leu Phe Val Pro Pro Gln Arg  
 165 170 175

Ala Thr Trp Tyr Thr Ala Leu Leu Val Ala Glu Gly Pro Ser Thr Pro  
 180 185 190

Ala Leu Phe Pro Val Ser Ser Leu Leu Trp Thr Arg Lys Asn Pro Asp  
 195 200 205

Leu Thr Tyr Thr Gly Gln Ser Ala Leu  
 210 215

<210> 70

<211> 156

<212> PRT

<213> Homo sapiens

<400> 70

Glu Gly Leu Ile Thr Ala Gly Val Ser Asp Ala Pro Leu Pro Gln Met  
 1 5 10 15

Gln Ile Pro Gly Thr Leu Trp Met Tyr Tyr Tyr Leu Ile Ser Leu Tyr  
 20 25 30

Ile Pro Phe Ser Met Asn Gly Glu Pro Met Pro Phe Trp Arg Gly Glu  
 35 40 45

Arg Trp Ser Ser Ser Ala Ile Leu Pro Lys Leu Phe Ala Phe Leu Glu  
 50 55 60

Asp Phe Pro Phe Phe Ser Glu Leu Asp Ile Trp Met Ser Glu Ala Gly  
 65 70 75 80

Arg Gly Phe Cys Phe Leu Ile Ala Ala Leu Arg His Thr Ser Pro Ile  
 85 90 95

Pro Ala Gln Met Arg Arg Pro Leu Glu Asn Lys His Gln Phe Arg Phe  
 100 105 110

Leu Asn Ile Ile Pro Thr Leu Ala Ile Met Pro Ala Leu Glu Thr Lys  
 115 120 125

Glu Leu Cys Ser Arg Lys Val Ser Val Gln Gly Tyr Thr Val Phe Ala  
 130 135 140

Val Cys Arg Gly Lys Phe Leu Thr Asp Ile Cys Leu  
 145 150 155

<210> 71

<211> 221

<212> PRT

<213> Homo sapiens

<400> 71

Leu Ala Gln Val Phe Pro Val Pro Gln Gly Asn Glu Tyr Phe Lys Gln  
 1 5 10 15

Lys Arg Val Arg Asp Met Ser Asn Val Tyr Cys His Thr Leu Thr Leu  
 20 25 30

Trp Ala Leu Ile Phe Leu Val Val Leu Ser Tyr Tyr Tyr Arg Phe Leu  
 35 40 45

Pro Cys Ser Tyr Leu Phe Gly Asn Gly Thr Glu Ile Trp Leu Leu Leu  
 50 55 60

Gly Thr Asn His Ser Ser Pro Leu Trp Lys Trp Leu Leu Ser His Lys  
 65 70 75 80  
 Tyr Ser Pro Ser Cys Ser Arg Leu Leu Ile Leu Asn Leu Trp Val Asn  
 85 90 95  
 -  
 Lys Val Thr His Leu Tyr Lys Glu Ile Gly Asp Gln Ser Asn Ser Pro  
 100 105 110  
 Ile Arg Lys Pro Gln Arg Val Gly Thr Asn Ser Val Met His Leu Glu  
 115 120 125  
 Leu Glu His Thr Cys Ser Asn Leu Gln Ser Gly Lys Leu Ile Val Leu  
 130 135 140  
 Trp Trp Leu Lys Lys Gln Arg Gly Ser Ala Glu Lys Pro Met  
 145 150 155 160  
 Asn Lys Pro Pro Val Pro Tyr Gly Phe Phe Leu Lys Ser Glu Phe Arg  
 165 170 175  
 Ala Gln Asn Glu Ser Ile Tyr Leu Val Leu Thr His Ser Ile Lys Asn  
 180 185 190  
 Glu Glu Thr Gly Ala Glu Leu Leu Lys Asn Ile Pro Val Ser Cys Lys  
 195 200 205  
 Ala Arg Thr Gly His Pro Tyr Val Leu Thr Leu Pro Cys  
 210 215 220  
 <210> 72  
 <211> 237  
 <212> PRT  
 <213> Homo sapiens  
 <400> 72  
 Leu Pro Ser Gln Gly Glu Gly Arg Ala Pro Lys Gly Leu Met Arg Gly  
 1 5 10 15  
 Leu Thr Asp Gln Gly Arg Glu Gln Asn Thr Phe Leu Ser Ile Gly Asp  
 20 25 30  
 Ser Val Thr Trp Leu Ser Leu Ile Ile Ser Glu Ala Trp Arg Ile His  
 35 40 45  
 Leu Phe Val Ser Pro Gly Arg Arg Glu Asn Lys Leu Trp Thr Phe Ser  
 50 55 60  
 Ser Leu Tyr Asp Asn Ser Leu Tyr Val Asp Cys Lys Gly Gly Thr Lys  
 65 70 75 80  
 Pro Ser Leu Leu Ser Asn Thr Ile Trp Gln Ser Pro Trp Val Ile Ile  
 85 90 95  
 Leu Asn Ile Asp Ala Tyr Cys Ser Arg Val Lys Lys Ile Ser Met Thr  
 100 105 110  
 Ala Phe Gln Phe Tyr Lys Phe Asn Leu Tyr Ser Ala Tyr Cys His Pro  
 115 120 125  
 His Val Leu Lys Asn Lys Ile Lys Asn Lys Lys Pro Ser Asn Tyr Val  
 130 135 140

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Leu Tyr Ser Lys Glu His Ser Tyr Ile Ser Leu His Cys Ile Leu Thr  
145 150 155 160

Thr Ile Leu Cys Ser Ile Cys Phe Thr Pro Phe Leu Leu Cys Phe Val  
165 170 175

Tyr Lys Glu Met Ser Pro Arg Glu Leu Asn Gly Leu Pro Gln Leu Val  
180 185 190

Lys Leu Lys Leu Gln Ser Arg Ser Phe Tyr Phe Gln Ile His Asn Leu  
195 200 205

Gln Pro Ser Val Glu Ser Tyr Asn Glu Ile Met Val Arg Gly Leu Ser  
210 215 220

Ile Ser Val Gln Val Cys Pro Ala Pro Thr Thr Ser Ile  
225 230 235

<210> 73

<211> 224

<212> PRT

<213> Homo sapiens

<400> 73

Ser Val His Cys Tyr Gln Glu Asn Asn Ala Phe Ser Gly Ser Leu Ile  
1 5 10 15

Leu Asn Thr Leu Ala Gly Asn Leu Leu Ala Arg Thr Gly Asp Leu Ile  
20 25 30

Ile Ser Ser Trp Met Arg Leu Trp Gly Gly Arg Ile Leu Thr Gly Tyr  
35 40 45

Thr Ala Ala Gln Thr Arg Val Ala Leu Gly Arg Arg Glu Gly Glu Asn  
50 55 60

Trp Val Asn Pro Met Met Pro Val Met Thr Asp Val Gly Leu Leu Asn  
65 70 75 80

Lys Phe Ser Ser Gln Lys Leu Met Ile Phe Thr Ile Pro Ile Trp Ile  
85 90 95

Ser Tyr Gly Glu Ile Gln Val Trp Leu His Ser Phe Ser Leu Ser Ile  
100 105 110

His Thr Leu Ile His Tyr Leu Leu Glu Ala Asn Phe Val Pro Gly Leu  
115 120 125

Val Arg Tyr Gly Val Thr Ser Cys Thr Lys Gln Pro Gly Ser Leu Gly  
130 135 140

Pro Thr Val Gly Lys Gln Gly Lys Cys Gly Arg Ile Ile Lys Ile Thr  
145 150 155 160

His Thr Ala Pro Arg Trp Gln Gly Lys Cys His Phe Phe Tyr Phe Leu  
165 170 175

Leu Met Asp Leu Arg Leu Phe Trp Phe Gln Trp Ser His Phe Ser Leu  
180 185 190

Ser Ile Gln Phe Ile Gln Asn Ser Phe Ala Ser Asp Lys Ile Ala Asn  
195 200 205

Trp Leu Pro Ala Asn Ser Phe Ser Pro Gln Ser Met Gly Asn Ala Gly

210

215

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220

<210> 74  
<211> 216  
<212> PRT  
<213> Homo sapiens  
-

&lt;400&gt; 74

Leu Leu Leu Leu Lys Val Ile Ala Phe Arg Leu Phe Gln Leu Gln Ser  
1 5 10 15

Lys Glu Val Tyr Val Tyr Ile Val Ile Cys Glu Tyr Thr His Thr Tyr  
20 25 30

Thr Tyr Phe Tyr Met Ser Ser Ile Phe Lys Leu Ser Arg Ile Val His  
35 40 45

Thr Asp Ile Ser Asn Pro Asn Gln Leu Pro Gln Gly Leu Phe Arg Pro  
50 55 60

Phe Ser Leu Gly Ser Leu Gln Leu Leu Leu Gln Gln Leu Glu Ile Trp  
65 70 75 80

Leu Pro Tyr Ser Phe Ala Leu Phe Asn Ser Ser Thr His Lys Trp Trp  
85 90 95

Leu Gln Asn Leu Ile Pro Pro Trp Glu Ile Thr Leu Leu Thr Lys Val  
100 105 110

Gln His Leu Cys Ile Val Leu Phe Glu Phe Leu Asp Leu Glu Ile Pro  
115 120 125

Leu Leu Phe Gln Ser Tyr Leu Gly Gln Asn His Phe Pro Phe Phe Ser  
130 135 140

Glu Val Val Leu Cys Ile Cys Asn Thr Val Arg Leu Phe Cys His Met  
145 150 155 160

Val His Ser Ile Leu Gly Phe Pro Ile Ser Phe Phe Asn Ile Cys Ile  
165 170 175

Tyr Val Ser Phe Phe Cys Ala Val Ser Phe Tyr Gly Phe Gln Leu Met  
180 185 190

His Ser Val Met Asn Leu Pro Pro Glu His His Thr Glu Phe His Gln  
195 200 205

Leu Lys Lys Phe Pro Met Phe Tyr  
210 215

<210> 75  
<211> 204  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 75

Phe Leu Pro Leu Cys His Asn Gly His Asp Asp Ser Trp Leu Thr Gln  
1 5 10 15

Thr Phe Cys Val Trp Lys Asp Leu Ile Cys Pro Phe Leu Glu Ala Thr  
20 25 30

Ile Leu Arg Phe Glu Lys Ser Phe Leu Lys Asn Lys Ile Phe Leu Ile

35

40

45

Lys Asn Asn Ala Ser Ser Leu Glu Lys Asn Lys Ile Asn Lys Ser Thr  
 50 55 60

Ile Phe Leu Asn His Leu Lys Met Thr Ile Val Ser Phe Phe Phe Phe  
 65 - 70 75 80

Leu Val Leu Phe Ser Val Ser Asn Leu Phe Ser Ile Lys Thr Ser Glu  
 85 90 95

Met Leu Gln Arg Ile Arg Gly Pro His Ile Glu Lys Phe Ile Asn Thr  
 100 105 110

Leu Ala Ser Cys Leu Ala Phe Val Pro Ser Leu Thr Gly Asn Ser Phe  
 115 120 125

Ser Ile Ser Leu Lys Leu Gln Ile Leu Asp Asn Ser Ser Arg Ser Ser  
 130 135 140

Ser Asn Val Leu Leu Asp Ser Ser Gln Gln Glu Leu Ile Tyr Phe Leu  
 145 150 155 160

Cys Ile Phe Val Pro Gln Asp Leu Leu Ser Tyr Gly Asn Tyr His Leu  
 165 170 175

Leu Pro Tyr Ile Thr Ile Phe Glu Ser Ser Asn Lys Val Phe Phe Phe  
 180 185 190

Phe Gln Met Lys Ser Arg Tyr Ile Ala Gln Ala Gly  
 195 200

<210> 76

<211> 228

<212> PRT

<213> Homo sapiens

<400> 76

Val Met Gly Asn Ala Arg Ile Cys Val Gln His Gly Arg Glu Ser Val  
 1 5 10 15

Trp Lys Ser Phe Asp Lys Leu Trp His Leu Ser Leu Thr Leu Pro Gln  
 20 25 30

Asn Phe Arg Leu Pro Ala Ile Tyr Lys Leu Glu Val Lys Ile Thr Ser  
 35 40 45

Met Tyr Thr Ser Gln His Lys Glu Ser Tyr Pro Ser Phe Leu Asp Gly  
 50 55 60

Ala Arg Ile Trp Val Arg Phe Ile Val Gln Ser Ser Ser Leu Phe Tyr  
 65 70 75 80

Arg Pro Gly Phe Lys Phe Thr Ser Lys Met Glu Asn Phe Gly Trp Glu  
 85 90 95

Asn Tyr Met Trp Glu Asp Ile Phe Ser Gly Asp Phe Ser Asn Tyr Ser  
 100 105 110

Phe Ser Tyr Asp Pro Thr Pro Phe Leu Leu Asp Ser Ala Pro Cys Trp  
 115 120 125

Pro Glu Ser Leu Glu Ile Asn Tyr Val Leu Ile Ile Ile Tyr Ala Leu  
 130 135 140

Met Phe Leu Leu Asn Val Met Asn Ser Leu Pro Met Leu Val Ile Leu  
 145 150 155 160  
 Phe Ser Val Ser His Cys His Arg Cys Leu Pro Ala Asp Pro Gly Leu  
 165 170 175  
 Gly Arg Pro Val Leu Phe Pro Asp Ile Ala His Leu Gly Cys Leu Gln  
 180 185 190  
 Glu Met Ala Gly Ile Phe Gly Thr Ile Cys Ala Arg Trp Ser Ser Ser  
 195 200 205  
 Arg Lys Ser Thr Ser Thr Gly Gly Ile Leu Leu Leu Ala Cys Arg Ser  
 210 215 220  
 Met Gly Leu Leu  
 225  
 <210> 77  
 <211> 220  
 <212> PRT  
 <213> Homo sapiens  
 <400> 77  
 Val Leu Thr Thr Ser Thr Val Phe Leu Lys Gln Asn Cys His Leu Leu  
 1 5 10 15  
 Glu Arg Lys Ile Tyr Gly Glu Ser Pro Ser Ser Ser Leu Thr Pro Glu  
 20 25 30  
 Lys Ala Trp Ile Lys Asn Ser Arg Gln Pro Trp Arg Leu Ser Leu Leu  
 35 40 45  
 His Gly Thr Met His Pro Trp Gly Arg Gln Lys Met Glu Lys Cys Ile  
 50 55 60  
 Ile Ile Lys Cys Leu Leu Cys Thr Arg Ser Gln His Phe His Met Tyr  
 65 70 75 80  
 Ser His Pro Ala Pro Phe His Ile Cys Ser His Phe Pro Asp Glu Gly  
 85 90 95  
 Thr Glu Ile Pro Arg Arg Glu Val Thr Ser Gly Gln Ser Trp Asp Leu  
 100 105 110  
 His Thr Ala Arg Lys Ser Thr Ala Asp Ile Asp Cys Val Leu Pro Leu  
 115 120 125  
 Cys Gln Leu Leu Phe Glu Gly Val Ser Arg Phe Gln Leu Ile Phe Ser  
 130 135 140  
 Gln Lys Cys His Gly Asp Asp Glu Glu Thr Glu Ala Lys Tyr Leu Ala  
 145 150 155 160  
 Val Ala Gln Leu Pro Asp Asp Gly Val Arg Ile Gln Tyr Trp Gln Cys  
 165 170 175  
 Trp Val Gln Ser Gln Val Leu Leu Thr Leu His Pro Val Cys Tyr Pro  
 180 185 190  
 Leu Ser Thr Ala Ser Gln Arg Lys Thr Tyr Thr His Gly Ala Phe Met  
 195 200 205

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Leu Phe Gly Asn Val Gln His His Gly Asn Ile Ile  
210 215 220

<210> 78

<211> 157

<212> PRT

<213> Homo sapiens

<400> 78

Lys Ile His Ser Ala Ala Gly Arg His Arg Ala Phe Ser Thr Cys Ser  
1 5 10 15

Ser His Leu Thr Val Val Leu Leu Gln Tyr Gly Cys Cys Ala Phe Met  
20 25 30

Tyr Leu Cys Pro Ser Ser Tyr Asn Pro Lys Gln Asp Gln Phe Ile  
35 40 45

Ser Leu Val Tyr Thr Leu Gly Thr Pro Leu Leu Asn Pro Leu Ile Tyr  
50 55 60

Ala Leu Arg Asn Ser Glu Met Lys Gly Ala Val Gly Arg Val Leu Thr  
65 70 75 80

Arg Asn Cys Leu Ser Gln Asn Ser Glu Arg Arg Gly Asp Ser Leu Ser  
85 90 95

Gly Lys Tyr Leu Val Pro Ala His Gln Ile Cys Met Lys Leu Arg Phe  
100 105 110

Leu Ser Phe Gly Val Lys Thr His Leu Lys Asp Gly Ile Asn Tyr Met  
115 120 125

Asp Thr Val Tyr Val Cys Gln Arg Phe Leu Asn Ile Ser Thr Ile Leu  
130 135 140

Cys Asn Phe Ser Ser Trp Lys Glu Leu His Glu His Lys  
145 150 155

<210> 79

<211> 227

<212> PRT

<213> Homo sapiens

<400> 79

Ile Lys Ile Arg Leu Gly Leu Lys Leu Ser Leu Pro Leu Ser Arg Glu  
1 5 10 15

Met Lys Cys Thr Leu Ser Thr Ile Leu Ile Leu Lys Leu Phe Lys Lys  
20 25 30

Cys Phe Arg Asp Ser Leu Pro Asp Lys Leu Ala Met Asn Phe Gln Pro  
35 40 45

Thr Arg Ala Phe Ile Tyr Ile Arg Gly Val Gln Glu Phe Arg Gln Leu  
50 55 60

Phe Thr Leu Lys Lys Ile Leu Ile Val Lys Thr Thr Lys Val Asp Gln  
65 70 75 80

Leu Ile Leu Phe Leu Trp Leu Leu Val Phe Ser Lys Val Leu Ile Leu  
85 90 95

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Leu Tyr Leu Ala Val Ser Lys Phe Gln Lys Cys Phe Cys Thr Asp Trp  
100 105 110

Pro His Phe Lys Phe Ser Ile Gly Asn Phe Lys Trp Val Leu Met Leu  
115 120 125

Pro Gly Val Leu Gly Leu Ile Leu Asp Phe Ser Val Phe Ser Leu Ser  
130 135 140

Cys Phe Phe Met Thr Ile Leu Cys Leu Pro Ser Leu Leu Lys Phe Pro  
145 150 155 160

Lys Asp Val Phe Tyr His Pro His Ala Gln Leu Met Asn Leu Ser Ser  
165 170 175

Tyr Phe Ala Glu Ile Met Arg Ala Ile Arg Ser Ser His His Cys Ser  
180 185 190

Trp Gly Ile Ile Cys Leu His Phe Gln Gln Arg Pro Cys Ser Ser Pro  
195 200 205

Arg Pro Thr Leu Leu Ala Trp Ala Ala Ile Thr Glu His His Arg Leu  
210 215 220

Gly Gly Leu  
225

<210> 80

<211> 164

<212> PRT

<213> Homo sapiens

<400> 80

Ser Leu Ser Ser Arg Gly Ser Glu Ala Gln Asn Cys Leu Glu Ile Cys  
1 5 10 15

Pro Ser Ser Asp Thr Glu Leu Met Leu Glu Arg Glu Pro Asn Leu Phe  
20 25 30

His Leu Asn Ser Cys Gly Lys Met Asn Thr Asn Cys Phe Leu Tyr Tyr  
35 40 45

Asp Asn Lys Lys Leu Ser Ser Ile Phe Leu Tyr Lys Lys Ala Ile His  
50 55 60

Met His Gln Ser Gly His Leu Leu Val Thr Phe Phe Pro His His Phe  
65 70 75 80

Thr Thr Phe His Phe Thr Thr Cys Cys Leu Asn Pro Leu Ile His Phe  
85 90 95

Phe Lys Lys Glu Asn Glu Phe His Tyr Tyr Gln Thr Pro Gly Ser Ser  
100 105 110

Cys Asp Gln Leu Phe Leu Val Val Lys Cys Cys Pro Glu Thr Lys Val  
115 120 125

Asn Leu Ser Val Leu Leu Cys His Asn Arg Thr Phe Pro Val Arg Arg  
130 135 140

Glu Cys Gly Arg Phe Gly Val Asn Pro Gly Met Gly Gln Gly Arg His  
145 150 155 160

Lys Ser Arg Asn

<210> 81  
<211> 221  
<212> PRT  
<213> Homo sapiens  
-

&lt;400&gt; 81

Leu Glu Phe Tyr Ser Lys His Gln Ser Arg Gly Ile Val Arg Glu Arg  
1 5 10 15

Asn Met Leu Ile Gln Asp Ser Gly Ser Leu Phe Phe Ser Ser Phe Phe  
20 25 30

Ser Gln Asn Asp Leu Asp Ser Cys Lys Val Leu Val Tyr Leu Val Ser  
35 40 45

Lys Ser Leu Phe Leu Leu Asn Phe Ile Cys Ile Asn Gln Leu Tyr Met  
50 55 60

Thr Lys Met Ser Pro Lys Phe Lys Ser Leu His Ser Lys Ala Leu Tyr  
65 70 75 80

Val His Leu Ala Ser Phe Gln Lys Thr Lys Ala Val Val Leu Lys Phe  
85 90 95

Ser Cys Thr Leu Ile Thr Gly Lys Leu Phe Lys Leu Leu Met Thr Lys  
100 105 110

Pro His Val Arg Leu Ile Tyr Ala Glu Ser Leu Gly Gln Gly Pro Arg  
115 120 125

Tyr Gln His Phe Leu Lys Leu Arg Asn Asn Gln Gly Glu Pro Leu His  
130 135 140

Lys Met Val Asn Ala Thr Phe Ile Val Ile Phe Phe Lys Ile Met Val  
145 150 155 160

Glu Leu Ile Leu Ile Leu Val Pro Ser His Gly Asn Phe Phe Arg Leu  
165 170 175

Arg Glu Phe Ile Leu Ala Leu Arg Leu Leu Lys Asn Leu Glu Ile Gln  
180 185 190

Val Phe Leu Phe Ile Phe Leu Ile Leu Glu Tyr Ala Ser Ala His  
195 200 205

Pro Tyr Leu Ile Ile Leu Glu Lys Tyr Ile Lys Thr Phe  
210 215 220

<210> 82  
<211> 216  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 82

Ile Ile Ile Met Leu Ile Leu His His Ile Gln Ile Asp Cys Asn Ile  
1 5 10 15

Val Ile Cys Asn Ile Leu Phe Lys Ile Asn Leu Ser Glu Ser Tyr Ile  
20 25 30

Ala Thr Val Val Ser Leu Ile His Arg Phe Ile Phe Tyr Gly Phe Ser

35

40

45

Tyr Leu Leu Ser Thr Arg Ile Gln Gln Tyr Tyr Met Gly Lys Ser Gln  
 50 55 60

Lys Thr Val Cys Lys Phe Phe Val Arg Cys Ser Gly Gln Arg Asp Lys  
 65 70 75 80

Ile Ser Cys Cys Ser Ser Leu Ser Cys Leu Asn Met Asn Tyr Pro Leu  
 85 90 95

Ser Ser Ile Ser Thr Leu His Met Leu Pro Ser His Ser Ser Phe Ser  
 100 105 110

Ser Cys Phe Asp Tyr Leu Ile Glu Lys Thr His Ser Ile Tyr Arg Val  
 115 120 125

Phe Tyr Gly Ala Arg Glu Asn Phe Leu Phe Val Leu Arg Phe Thr Glu  
 130 135 140

Asn Ser Thr His Lys Gly Arg Leu Ile Gly Met Lys Val Lys Lys Lys  
 145 150 155 160

Ile Tyr His Gln Trp Arg Leu Gln Ser Asp Tyr Ser Ile Ala Ile Asn  
 165 170 175

Gly Leu Gln Trp Leu Lys Tyr Arg Phe Glu Val Thr Lys Arg Val Glu  
 180 185 190

Val Leu Gly Ser Trp Gln Asn Arg Leu Trp Glu Glu Glu Lys Arg Asn  
 195 200 205

Pro Gly Gln Arg Ser Ser Cys Asp  
 210 215

<210> 83

<211> 118

<212> PRT

<213> Homo sapiens

<400> 83

Phe Phe Pro Leu Ser Val Ser Leu Met Leu Ser Ser Lys Trp Arg Trp  
 1 5 10 15

Arg Gly Phe Thr Ser Leu Phe Ser Asn Ser Pro Phe Phe Gly Phe Phe  
 20 25 30

Ser Ser Thr Ser Lys Ser Val Gln Asn Val Pro Leu Ala His Arg Lys  
 35 40 45

Ser Phe Leu Asp Pro Ala Thr Tyr Leu Thr Lys Ile Pro His Phe Ser  
 50 55 60

Ser Ser Phe Lys Ile Ser Phe Ile Met Val Cys Val Asn Gly His Ile  
 65 70 75 80

His Leu Ile His Ser Phe Leu Lys Phe Gln Lys Asn Gly Phe Val Ser  
 85 90 95

Cys Tyr Phe Asn Gly Ile Ile Phe Pro Lys Ile Asn Arg Thr Phe Pro  
 100 105 110

Gln Ala Gln Ser Ser Arg  
 115

<210> 84  
<211> 147  
<212> PRT  
<213> Homo sapiens

<400> 84 -

Ile Glu Ile Ile Cys Thr Leu Leu Pro Leu Glu Asn Asn Glu Lys Leu  
1 5 10 15

Gly Ile Ser Gln Cys Tyr Leu Leu Val Ala Ser Gly Ile Lys His Asn  
20 25 30

Gln Asn Gly Ser Gly Gln Cys Thr Pro His Phe Lys Ala Cys Asn Ser  
35 40 45

Glu Val Glu Pro Arg His Leu Pro Leu Val Val Tyr Ser Val Tyr Leu  
50 55 60

Ile Asp Ser Pro Lys Cys Lys Leu Leu Ile Asn Arg Ala Tyr Val Arg  
65 70 75 80

Ser Pro Val Met Cys Leu Ile Leu Ser Asp Val Cys Ser His His Thr  
85 90 95

Ser Phe Gly Val Cys Asn Ser Phe Val Cys Gly Phe Phe Cys Leu Val  
100 105 110

Ile Leu Val Cys Pro Val Cys Phe Tyr Gly Arg Val Trp Arg Asn Ser  
115 120 125

Lys Ala Ile Pro His Cys Pro Ser Ser Phe Pro Trp Ile His Val Pro  
130 135 140

Tyr His Val  
145

<210> 85  
<211> 202  
<212> PRT  
<213> Homo sapiens

<400> 85

Thr Ser Leu Cys Ala Ser Val Ala Lys Ser Met Arg Ala Gly Lys Thr  
1 5 10 15

Cys Ile Leu Ser Cys Ile Cys Ile Gln Met Leu Asp Pro His Leu Cys  
20 25 30

Pro Val Gln Tyr Leu Ser Leu Leu Leu Gln Trp Val Thr Asn Glu  
35 40 45

Pro Cys Leu Pro Ala Trp Gly Arg Arg Gly Leu Arg Asp Ile Ser Thr  
50 55 60

Gly Ile Phe Gly Val Ser Arg Leu Glu Arg Asn Leu Leu Ile Ser Thr  
65 70 75 80

Leu Tyr Asn Tyr His Asn Ile Leu Phe Leu Met Lys Gln Gln Phe Thr  
85 90 95

Phe Leu Cys Trp Leu Tyr Phe Ala Ser Phe Thr Trp Gln Tyr Leu Met  
100 105 110

Pro Ser Ieu Gly Ile Arg Arg Lys Thr Arg Pro Gln Ile Pro Gly Pro  
 115                   120                   125

Ser Thr Leu Phe Leu Leu Gly Thr Ser Phe Thr Ser Ser Ser Ala Asp  
 130                   135                   140

Ala Pro Leu Leu Pro Thr Pro Pro Arg Lys Val Ser Ser Gln Gln Ala  
 145                   150                   155                   160

Leu Thr Lys Gly Ser His Phe Leu Pro Lys Gly Glu Ser Ser Gln Ala  
 165                   170                   175

Val Asn Phe Ser Asn Phe Cys His Cys Ser Ser Val Ala Asp Leu Pro  
 180                   185                   190

Ser Ser Leu Ser Trp Arg Ile Leu Pro Gly  
 195                   200

<210> 86

<211> 189

<212> PRT

<213> Homo sapiens

<400> 86

Leu Asn Ala Thr Pro Phe Ser Ser Glu Thr Leu Trp Cys Ile Leu Gly  
 1                   5                   10                   15

His Tyr Leu Ser Lys Gly Pro Lys Leu Asn Ser Ser His His Pro Ser  
 20                   25                   30

Phe Phe Cys Leu Arg Phe Tyr Phe Pro Asn Gln Ile Trp Val Asn Phe  
 35                   40                   45

Gln Pro Leu Ser Val Ser Tyr Phe Gln Ser Asn Lys Thr Cys Met Asp  
 50                   55                   60

Leu Phe Cys Ile Ser Ser Asn Val Ile Ile His Ser Lys Ser His Cys  
 65                   70                   75                   80

Leu Thr Ile Ser Leu Pro Ile Ala Leu Ala Ile Lys Lys Leu His Trp  
 85                   90                   95

His Gly Phe Gln Thr Cys Ile Leu Phe Phe Gly Gly Leu Ile Leu Asn  
 100                   105                   110

Leu Lys Tyr Leu Arg Ile Ser Asn Thr Ile Phe Lys Met Gln Gln Ile  
 115                   120                   125

Phe Lys Thr Ala Ser Leu Cys Gln Ala Lys Gly Val Ser Cys Gln Leu  
 130                   135                   140

Ser Leu Thr Ala Lys Glu Ala Lys Ile Ile Leu Met Val Val Leu Lys  
 145                   150                   155                   160

Glu Ala Ser Ala His Phe Leu Gly Gln Cys His Pro Thr His Leu Leu  
 165                   170                   175

Gln Gly Leu Asp Thr Lys Gly Asp Val Ser Asp Phe Pro  
 180                   185

<210> 87

<211> 191

<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 87

Asn	Arg	Lys	Asn	Leu	Lys	Ile	Ser	Thr	Val	Phe	Asn	Gln	Phe	Phe	Ser
1				5					10					15	
-															
Leu	Leu	Pro	Val	Leu	Trp	His	Asn	Ile	Val	Leu	Asn	Trp	Lys	Asn	Thr
				20				25					30		
Met	Leu	Ala	Phe	Thr	Tyr	Met	Ser	Ile	Leu	Ile	Leu	Ser	Arg	Cys	Leu
	35						40					45			
Val	Ser	Pro	Tyr	Leu	Lys	Leu	Leu	Ile	Ile	Leu	Phe	Cys	Ser	Leu	
	50				55					60					
Tyr	Val	Leu	Trp	Ala	Asn	Lys	Ser	Tyr	Pro	Pro	Asn	Lys	Leu	Thr	Phe
	65				70			75				80			
Lys	Lys	Phe	Ala	Lys	Asp	Trp	Leu	Pro	Ile	Ser	Leu	Tyr	Leu	Ile	
		85				90					95				
Pro	Phe	Lys	Ala	Lys	Tyr	Cys	Phe	Ala	Thr	Ile	Leu	Leu	His	Tyr	
		100					105				110				
Thr	Glu	Leu	Pro	Ala	Leu	Phe	Ser	Ala	Lys	Trp	Lys	Ala	Tyr	Phe	Ser
	115					120					125				
Lys	Ser	Tyr	Val	His	Leu	Leu	Leu	His	Asp	Ile	Asn	Lys	His	Asn	Thr
	130				135				140						
Ser	Ile	Thr	His	Phe	Thr	Asn	Ala	Arg	Leu	Ala	Lys	Asn	His	Thr	Tyr
	145				150			155				160			
Lys	Trp	Pro	His	Leu	Leu	Tyr	Pro	His	Pro	Gly	His	Val	Leu	Ser	Leu
	165					170			175						
Pro	Trp	Lys	Pro	Met	Glu	Lys	Leu	Arg	Thr	Leu	Glu	Arg	Met	Trp	
		180				185			190						

&lt;210&gt; 88

&lt;211&gt; 194

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 88

Lys	Lys	Phe	Leu	Arg	Glu	Gln	Ile	Cys	Asp	Phe	Ile	Met	Ser	Phe	Ile
1				5				10			15				
-															
Met	Phe	Cys	Ser	Phe	Gln	Ile	Gln	Met	Ser	Ile	Ile	Cys	Phe	Tyr	Asp
		20				25					30				
Gln	Ser	Ile	Ile	Pro	Cys	Lys	His	Ile	Ser	Ala	Leu	Ile	Leu	Phe	Leu
	35				40					45					
Asn	Asn	Thr	Gly	Asn	Val	Ile	Cys	Cys	Lys	Leu	Leu	Thr	Phe	Val	Arg
	50					55			60						
Lys	Phe	Cys	Phe	Thr	Glu	Tyr	Val	Arg	Cys	Arg	Gln	Asn	Ile	Asn	His
	65				70			75			80				
Cys	Phe	Ile	Phe	Met	Val	Glu	Glu	Lys	Ser	Ile	Ala	Cys	Ser	Pro	Phe
		85				90					95				

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Ala Val Tyr Lys Gly Glu Phe Tyr Cys Leu Asn Ser Phe Ile Phe Trp  
100 105 110

Pro Val Gin Glu Thr Phe Ile Ser Lys Ile Trp Met Tyr Val Phe His  
115 120 125

Ile Leu Glu Phe Ile Val Trp Lys Asn Thr Ile Lys Val Asp Gln Lys  
130 135 140

Ile Leu Lys Ile Leu Thr Ser Cys Leu Ser Tyr Val Lys Val Leu Trp  
145 150 155 160

Leu Ile Leu Phe Ile Leu Ser Cys Ser Leu Ala Gly Tyr Trp Gln Thr  
165 170 175

Gln Ser Phe Cys Phe His Lys Glu Leu Met Lys Arg Thr Ile Gly Lys  
180 185 190

Pro Thr

<210> 89  
<211> 218  
<212> PRT  
<213> Homo sapiens

<400> 89

Gln Ser Gln Pro Ser Leu Pro Gly Ser Met Gly Asp Glu Leu Ala Pro  
1 5 10 15

Cys Pro Val Gly Thr Thr Ala Trp Pro Ala Leu Ile Gln Leu Ile Ser  
20 25 30

Lys Thr Pro Cys Met Pro Gln Ala Ala Ser Asn Thr Ser Leu Gly Leu  
35 40 45

Gly Asp Leu Arg Val Pro Ser Ser Met Leu Tyr Trp Leu Phe Leu Pro  
50 55 60

Ser Ser Leu Leu Ala Ala Ala Thr Leu Ala Val Ser Pro Leu Leu Leu  
65 70 75 80

Val Thr Ile Leu Arg Asn Gln Arg Leu Arg Gln Glu Pro His Tyr Leu  
85 90 95

Leu Pro Ala Asn Ile Leu Leu Ser Asp Leu Ala Tyr Ile Leu Leu His  
100 105 110

Met Leu Ile Ser Ser Ser Ser Leu Gly Gly Trp Glu Leu Gly Arg Met  
115 120 125

Ala Cys Gly Ile Leu Thr Asp Ala Val Phe Ala Ala Cys Thr Ser Thr  
130 135 140

Ile Leu Ser Phe Thr Ala Ile Val Leu His Thr Tyr Leu Ala Val Ile  
145 150 155 160

His Pro Leu Arg Tyr Leu Ser Phe Met Ser His Gly Ala Ala Trp Lys  
165 170 175

Ala Val Ala Leu Ile Trp Leu Val Ala Cys Cys Phe Pro Thr Phe Leu  
180 185 190

Ile Trp Leu Ser Lys Trp Gln Asp Ala Gln Leu Glu Gln Gly Ala

195

200

205

Ser Tyr Ile Leu Pro Pro Ser Met Gly Thr  
 210                    215

<210> 90  
 <211> 223        -  
 <212> PRT  
 <213> Homo sapiens

<400> 90

His Phe Lys Ile Asn Leu Phe Pro Val Asn Leu Cys Ser Ser Ser His  
 1                    5                    10                    15

Pro Leu Phe Asn Glu Leu Pro Pro Phe Pro Thr Leu Phe Leu Ala Phe  
 20                    25                    30

Ile Pro Met Val Pro Leu Lys Val Phe Ser Ser Ser Leu Pro Phe Ser  
 35                    40                    45

Pro Pro Val Phe Ser Gly Val Asn Gly Ala Ala Asn Ser Pro Ser Ser  
 50                    55                    60

Ser Cys Leu Asn Arg Ser Ser Ser Pro Thr Pro Ala Ala Ala Pro Tyr  
 65                    70                    75                    80

Ser Gln Ser Gln Ser Pro Val Cys Val Ile Ala Gly Met Ser Leu Glu  
 85                    90                    95

Ser Thr Asn Ile Leu Tyr Ser His Thr Cys Leu Pro Pro Met Ser Ser  
 100                    105                    110

Ala Pro Leu Leu Val Ser Glu Phe Gln Val Gly Pro Val Pro Phe Phe  
 115                    120                    125

Leu Pro Cys Arg Leu Ser Arg Thr Arg Ser Leu Pro Thr Ser Asp Phe  
 130                    135                    140

Leu Ser Asp Asp Phe Trp Gly Phe Ser Ile Cys Leu Leu Glu Gly Pro  
 145                    150                    155                    160

Leu Gly Asp Phe Tyr Gly Thr Leu Ile Ala Ser Phe Leu Tyr Leu Arg  
 165                    170                    175

Asn Val Phe Leu Leu Glu Thr Pro Lys Ile His Asp Ile Phe Phe  
 180                    185                    190

Thr Lys Leu Phe Leu Leu Ser Pro Ala Phe Asn Lys Ser Leu Phe Ala  
 195                    200                    205

Lys Lys Trp Cys Arg Phe Phe Thr Thr Ala Ser Glu Lys Ser Val  
 210                    215                    220

<210> 91  
 <211> 193  
 <212> PRT  
 <213> Homo sapiens

<400> 91

Phe Pro Arg Ile Val Cys Thr Val Thr Gly Val Ala Val Tyr His Ser  
 1                    5                    10                    15

Ile Tyr Thr Ser Ile Trp His Thr Ala Gly Ala Ser Gly Thr Thr Tyr

20 25 30

Gln Ser Val Ser Leu Pro Asp His Phe His Asp Val Leu Ser Tyr Leu  
 35 40 45

Pro Cys Asn Lys Leu Val Asn Val Tyr Asp Cys Phe Val Ile Pro Met  
 50 - 55 60

Gln Ser Cys Asn Asn Asn Met Tyr Phe Lys Asn Leu Gly Ile Phe Leu  
 65 70 75 80

His Thr Ile Ser Ser Ile His Ile Asn Glu Lys Ser Lys Leu Gly Val  
 85 90 95

Ser Val Lys His Trp Ile Phe Thr Met Leu Ile Gly Val Pro Phe Ile  
 100 105 110

Ile Ala Ala Tyr Arg His Ile Ala Ile Val Pro Cys Thr Phe Asn His  
 115 120 125

Gln Cys Cys Gln Ala Ser Lys Ala Val Asn Val Tyr Leu Gly Leu Ile  
 130 135 140

Ile Arg Ile Thr Arg Asn Asn Phe Phe Asn Phe Asn Ile Leu Phe Phe  
 145 150 155 160

His Arg Leu Leu Gly Tyr Arg Cys Cys Leu Ile Thr Val Leu Tyr Trp  
 165 170 175

Phe Glu Arg Phe Gly Cys Thr Gln His Pro Ser Ser Ile His Tyr Ser  
 180 185 190

Leu

<210> 92

<211> 191

<212> PRT

<213> Homo sapiens

<400> 92

Gly Leu Phe Arg Glu Pro Leu Glu Ile Pro Pro Pro Trp His Gln Leu  
 1 5 10 15

Pro Pro Pro Pro Glu Leu Thr Val Ser Ser Leu Asp Ala Ala Pro Gly  
 20 25 30

Lys Val Ile Asn Asn Gln Val Ser Lys Gln Cys Trp Ala Val Phe Leu  
 35 40 45

Ile Leu Pro Phe Pro Asn Trp Val Leu Phe Gly Lys Leu Leu Ser Tyr  
 50 55 60

Phe Ile Cys Thr Met Gly Tyr Thr Tyr Ala Phe Tyr Ile Trp Leu Leu  
 65 70 75 80

Arg Arg Leu Ser Asp Met His Thr Lys Asn Ala Glu Gln Asn Thr Leu  
 85 90 95

Ser Ile Ser Phe Leu Ser Val Ile Lys Trp Arg Pro Leu Arg Leu Ser  
 100 105 110

Asn Leu Leu Leu Trp Leu Ile Leu Val Leu Ile Leu Ile Tyr Lys  
 115 120 125

Leu Cys Cys Ile Trp His Met Val His Val His Glu Tyr Val Leu Tyr  
 130 135 140

Lys Gly Met Lys Asn Gln Leu His Glu Lys Lys Phe Gln Ile Leu His  
 145 150 155 160

Phe Thr Asn Thr Asp Thr Lys Asn Thr Lys Ile Leu Arg Gly Lys Ser  
 165 170 175

Asp Leu Ala Thr Ser Thr Trp Ala Ser Leu Lys Val Cys Phe Trp  
 180 185 190

<210> 93

<211> 133

<212> PRT

<213> Homo sapiens

<400> 93

Leu Asn Leu Lys Ile Asn Arg Ala Ile Leu Asp Arg Gln Asn Phe Gly  
 1 5 10 15

Asp Ser Glu Cys Pro Arg Asn Asp Pro Met Met Phe Val Gly Phe Ile  
 20 25 30

Ile Cys Ile Arg Cys Val Leu Trp Leu Gly Phe Met Ala Cys Phe Tyr  
 35 40 45

Phe Leu Leu His Ser Thr Gly Leu Lys Arg Gln Gln Gly Gln Cys Leu  
 50 55 60

Ile Tyr Asn Val Val Leu Cys Phe Leu Asn Lys Val Pro Gln Leu Ser  
 65 70 75 80

Glu Ile Phe Met Val Asn Ile Lys Gln Ser Lys Phe Ile Cys Leu Pro  
 85 90 95

Glu Ser Leu Val Ile Tyr Leu Asp Ser Phe Arg Ile Pro Leu Asn Ile  
 100 105 110

Ile Glu Gly Cys Met Ile Phe Lys Thr Glu Met Glu Ile Met Leu Trp  
 115 120 125

Ile Asn Ala Ile Arg  
 130

<210> 94

<211> 202

<212> PRT

<213> Homo sapiens

<400> 94

Tyr Ala Lys Glu Leu Thr Val Trp Ala Lys Val Asn Glu Ser Leu Lys  
 1 5 10 15

Leu His Ala Lys Leu Cys Val Val Ala Cys Val Cys Val Tyr Ser Tyr  
 20 25 30

Val Phe Phe Lys Glu Val Tyr Tyr Leu Leu Asp Ser Gln Ile Val Gln  
 35 40 45

Trp Pro Gln Asn Ile Lys Thr His Val Gln Ile Gln Ser Lys Leu Arg  
 50 55 60

Ala Val Lys Glu Ile Gln Thr Lys Asn Ser Phe Cys Pro Ser Ser Phe  
 65 70 75 80

Asn Cys Leu Arg Gly Ala Trp Asp Trp Ala Thr Tyr Trp Ala Gly His  
 85 90 95

Leu Gln Arg Ile Leu Gln Gly Lys Gly Thr Gln Thr Ser Gly Leu Glu  
 100 105 110

Ser Lys Phe Lys Ser Cys Gly Val Gly Tyr Met Leu Gln Glu Ile Arg  
 115 120 125

Glu Ser Val Asn Pro Glu Ile Gly Glu Ala Asp Ser Pro Arg Lys Asp  
 130 135 140

Asn Ser Glu Trp Ser Leu Glu Gly Arg Val Arg Leu Glu Leu Glu Pro  
 145 150 155 160

Glu Val His Ala Ser Ala Ser Val Val Ser Arg Asp Met Thr Lys Leu  
 165 170 175

Glu Arg Arg Lys Ala Arg Asn Gly Trp Gly Trp Lys Leu Leu Asp  
 180 185 190

Ala Ser Gln Thr Lys Gly Ile Leu Asp Pro  
 195 200

<210> 95

<211> 178

<212> PRT

<213> Homo sapiens

<400> 95

Lys Leu Ser Val Phe Ile Pro Leu Gln Thr His Thr Pro Asn Ile Gln  
 1 5 10 15

Trp Glu Arg Asn Asn Ile Thr Ala Glu Glu Val Ser Glu Arg His Lys  
 20 25 30

Ala Val Ile Gly Ser Leu Leu Asn Ser Pro Arg Gln Met Leu Pro Gly  
 35 40 45

Ser Leu Pro Trp Gly Gly Leu Val Ile Phe Leu Glu Val Val Ser Ser  
 50 55 60

Ser Leu Phe Ser Thr Val Leu Gln Leu Pro His Pro Ser Ser Cys Leu  
 65 70 75 80

Leu Arg Ser Leu Tyr Pro Leu Asp Ser Arg Leu Leu Asp Val Leu  
 85 90 95

Thr Phe Leu Gln Gln Lys Leu Ser Leu Phe Leu Asn Leu Phe Ala Val  
 100 105 110

His Arg Lys Trp Lys Val Gln Arg Leu Leu Phe Asn Phe Leu Ser Leu  
 115 120 125

Phe Ile Ala Ser Trp Val Pro Phe Thr Tyr Ile Thr Leu Leu Lys Ser  
 130 135 140

Phe Cys Gly Leu Ser Met Tyr Gln Ile Ile Asp His Phe Ile Lys Ala  
 145 150 155 160

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Thr Phe Phe Val Phe Gln Thr Ser Phe Leu Tyr Phe Gly Gln Val Arg  
165 170 175

Pro Leu

<210> 96 -  
<211> 191  
<212> PRT  
<213> Homo sapiens

<400> 96

Met Val Phe Val Arg Ser Tyr Cys Pro Lys Ser Leu Phe Cys Pro Ser  
1 5 10 15

Tyr Asp Ile Cys Phe Asn Ile Asn Asp Ala Gln Leu Cys Leu Asp Pro  
20 25 30

Lys Arg Arg Ser Leu Tyr Asp Phe Pro Cys Cys Tyr Gly Gln Glu Phe  
35 40 45

Ser Phe Lys Leu Phe Trp Gly Leu Ala Thr Arg Gly Ser Val Gln Ser  
50 55 60

Val Gln Arg Ala Asp Leu Ser Ser Leu Ile His Ile Pro Pro Phe Trp  
65 70 75 80

Ser Lys Tyr Ala Lys Ser Ser Ile Asn Ser Gln Ala Leu Ile Ser Phe  
85 90 95

His Ile Ile Thr Arg Trp Cys Gly Tyr Leu Ser Gln Ile Tyr Ser Val  
100 105 110

Leu Gln Trp Asp Pro Tyr Ser Gln Gly Thr Tyr Ser Gln Lys Thr Tyr  
115 120 125

Ser Gln Leu Asn Ile Leu Gly Gln Lys Gly Met Glu Val Gly Arg His  
130 135 140

Ser Leu Phe Leu Lys Asn Leu Leu Ser Asn Ile Arg Ala Thr Asn Gln  
145 150 155 160

Lys Pro Lys Ser Lys Leu Thr Lys Pro Ile Tyr Leu Val Leu Cys Val  
165 170 175

Gly Pro Ser Ala Leu Arg His Leu Ala His Leu Phe Trp Arg Ile  
180 185 190

<210> 97  
<211> 91  
<212> PRT  
<213> Homo sapiens

<400> 97

Gly Arg Gly Gly Gln Gln Gly Gly Leu Gln Asn His Asp Val Phe Leu  
1 5 10 15

Thr Gly Leu Thr Ser Ala Ser Ile Cys Leu Thr Leu Gln Pro Met Ser  
20 25 30

Leu Phe Leu Val Val Ile Leu Met Gly Ala Leu Arg Ser Gln Arg Arg  
35 40 45

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Gly Leu Arg Arg His Cys Leu Tyr Leu Trp Ser Tyr Ile Arg His Leu  
50 55 60

Tyr Phe Val Met Asn Ser Lys Ser Ser Ser Lys Met Gln Leu Trp Gly  
65 70 75 80

Asn Ser His Arg Asn Phe Ser Gln Phe Trp Leu  
85 90

<210> 98

<211> 201

<212> PRT

<213> Homo sapiens

<400> 98

Ser Arg Asp Gln Ile Thr Pro Ser Arg Ser Trp Arg Lys Asp Pro Ser  
1 5 10 15

Ser Glu Gly Thr Trp Leu Gly Gly Leu Ser Val Ser Gly Ser Cys Val  
20 25 30

Gly Ile Ser His Ser Val Gly Ala Ser Val Ile Ala Gly Trp Pro Phe  
35 40 45

Asp Asn Ala Thr Cys Lys Met Ser Gly Leu Val Gln Gly Met Ser Val  
50 55 60

Ser Ala Ser Val Phe Thr Leu Val Ala Ile Ala Val Glu Arg Glu Val  
65 70 75 80

Ser Trp Leu Asp Tyr Ala Ala Asn Gly Leu Ala Leu Arg Gly Ala Thr  
85 90 95

Ala Ser Asn Ala Gly Leu Ala Gly Arg Leu Gly Leu His His Gly Lys  
100 105 110

Trp Gly Ile Leu Ser His Lys Glu Lys Gly Pro Gly Pro Ser Cys Pro  
115 120 125

Leu Pro Lys Leu Gly Glu Pro Asp Glu Asp Thr Thr Thr Pro Phe Trp  
130 135 140

Lys Ala Arg Pro Trp Leu Ala Phe Val Gly Ile Pro Gly Ala Cys Glu  
145 150 155 160

Glu Leu Lys Ser Ser Pro Tyr Phe Leu Ser Ser Arg Asn Pro Ala Thr  
165 170 175

Ser Lys Ser Glu Pro Gly Glu Pro Glu Leu Arg Gly Pro Ala Tyr Gly  
180 185 190

Trp Val Thr Val Trp Leu Gly Arg Lys  
195 200

<210> 99

<211> 218

<212> PRT

<213> Homo sapiens

<400> 99

Thr Pro Lys Arg Leu Lys Leu Arg Ser Leu Ile Leu Ser Ser Val Lys  
1 5 10 15

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Glu Phe Leu Glu Ser Pro Pro Ser Leu Gly Met Phe Leu Ser Ser Trp  
20 25 30

Phe Asn Ile Ala Ala Asp Ala Pro Ala Ile Thr Ala Thr Phe Gln Thr  
35 40 45

Ala Lys Tyr Gly Lys Arg Met Lys Arg Arg Ala Cys Leu Gly Val  
50 55 60

Pro Cys Ile Ile Ser Ile Tyr Ile Trp Ala Glu Pro Ser His Arg Ala  
65 70 75 80

Thr Pro Tyr Val Ser Val Ser Tyr Cys Tyr Ile Ala Thr Thr Lys Phe  
85 90 95

Pro Cys His Thr Thr His Ile Cys Arg Leu Ala Arg Val Gln Phe Leu  
100 105 110

His Ala Gly Leu Arg Gln Ala Val Leu Leu Arg Val Thr Val Ala Glu  
115 120 125

Leu Ile Pro Phe Leu Thr Ala Gly Leu Cys Phe Ser Val Thr Val Pro  
130 135 140

Cys Ala Phe His Leu Pro Trp Val Asp Glu Arg Lys Pro His Leu Ser  
145 150 155 160

Thr Gly Leu Ala Thr Ser Val Pro His Gly Pro Lys Arg His Gln Arg  
165 170 175

Ala Asp Arg Asn Arg Asp Leu Leu Arg Ser Arg Leu Lys Thr Gly Thr  
180 185 190

Leu Pro Arg Leu Phe Thr Ser Tyr Pro Lys His Arg Cys Ile Thr Lys  
195 200 205

Pro Gln Val Lys Gly Lys Tyr Asn Pro  
210 215

<210> 100

<211> 175

<212> PRT

<213> Homo sapiens

<400> 100

Thr Ile Ile Cys Cys Ile Phe Gln Asn Ser Cys Asn Val Ser Asn Thr  
1 5 10 15

Lys Lys Arg Met Phe Val Val Met His Ile Ser Ser Thr Leu Ile Leu  
20 25 30

His Ile Val Tyr Ile Tyr Gln Asn Ile Ser Ser Thr Ser Lys Ile Cys  
35 40 45

Ser Ile Ile Val Val Gln Lys Asn Leu Asn Asn Tyr Asn Val Leu Phe  
50 55 60

Ile Ser Lys Trp Phe Ile Arg Phe Lys Ile Phe Leu Val Phe Asn Phe  
65 70 75 80

Phe Ile Tyr Tyr Leu Ile Pro Phe Asn Phe Leu Lys Tyr Ile Arg Ser  
85 90 95

Ser Tyr Phe Arg Val Lys Phe Lys Ser Phe Glu Tyr Leu Ile Leu Gln

100

105

110

Ser Phe Leu Pro Leu Ile Phe Pro Gln Trp Pro Val Ser Val Val Met  
 115 120 125

Met Leu Leu Arg Asn Gly Leu Ala Thr Cys Thr Lys Pro Ile Leu Trp  
 130 - 135 140

Gln Trp Phe Ser Arg Lys Glu Lys Ala Leu Leu Val Tyr Trp Gin Gly  
 145 150 155 160

Asp Arg Trp Gln His Ser Asn Leu Ser Pro Thr Glu Asp Gly Gly  
 165 170 175

&lt;210&gt; 101

&lt;211&gt; 184

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 101

Ser Tyr Leu Gly Pro Val His Ser Phe Ser Gln Thr Ala Ser His Ala  
 1 5 10 15

Ile Pro Ser Met Lys Ile Leu Pro Phe Pro Leu Ser Phe Phe Ser Ser  
 20 25 30

Leu Ile Tyr Ser Pro Val Leu Val Ser Ser Phe Pro Ser Ser Ser Gly  
 35 40 45

Gln Thr Leu Phe Thr Ser Leu Thr Thr Pro Ser Lys Ile Val Leu Ile  
 50 55 60

Thr Val Tyr Pro Leu Asn Thr Leu Tyr Arg Ser Trp Pro Ser Pro Asp  
 65 70 75 80

Asn Val Leu Cys Ile Phe Trp Phe Thr Cys Cys Val Ser Ser Phe Leu  
 85 90 95

His Cys Cys Lys Glu Ile Pro Glu Thr Gly Phe Ile Lys Lys Arg Gly  
 100 105 110

Leu Ile Asp Ser Gln Phe Cys Arg Leu Tyr Gly Lys His Val Ala Gly  
 115 120 125

Ile Cys Leu Ala Ser Gly Glu Asp Ser Gly Asn Leu Gln Ser Trp Gly  
 130 135 140

Arg Arg Gly Ser Arg His Ile His Ser Arg Ser Ser Lys Ala Lys Gly  
 145 150 155 160

Asp Val Pro His Thr Ser Lys Pro Asp Leu Met Arg Thr His Tyr His  
 165 170 175

Glu Asn Ser Thr Arg Gly Trp Cys  
 180

&lt;210&gt; 102

&lt;211&gt; 212

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 102

Tyr Asn Asn Ser Leu Leu Tyr Ile Ser Ile Phe Cys Leu Ser Gln Val

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1 5 10 15  
Ser Thr Leu Ser Gly Ile Val Cys Ser Phe His Ser Phe Trp Leu Ser  
20 25 30  
Trp Glu Gln Gln Ser Ser Ala Thr Pro Ala Met Val Ile Val Gln Met  
35 - 40 45  
Ser Asn Gln Ser Ser Ile Thr Ile Arg Ser Lys Leu Gln Thr Phe Ser  
50 55 60  
Pro Leu Ala Phe Arg Ile Leu Tyr Thr Gln Phe Met Met Tyr Arg Lys  
65 70 75 80  
Cys Leu Leu Leu Phe Ser Leu Gln Leu Gly Phe Gln Lys Glu Ile Met  
85 90 95  
Ala Ser Arg Asn His Leu Tyr Leu Gln Met Ala Gly Ser Ile His Arg  
100 105 110  
Arg Ala Ile Tyr Gln Gln His Tyr Ser Met Phe Gln Pro Lys Met Ser  
115 120 125  
Leu Pro His Val Arg Gln Thr Thr Tyr Ile Gly Thr Thr Ala Val Thr  
130 135 140  
Val Phe Phe Ser Thr Phe Leu Ile Met Lys Ser Met Leu Asn Ser Thr  
145 150 155 160  
Met Ala Phe Pro Phe Ser Trp Gln Ser Thr Ala Tyr Thr Ile Leu His  
165 170 175  
Leu Thr Val Phe Ile Leu Pro Ser Gly Lys Ala Leu Trp Lys Gln Ser  
180 185 190  
Arg Gly Tyr Phe Gly Asp Leu Asn Tyr Tyr Asn Leu Ser Leu Leu  
195 200 205  
Cys Phe Leu Gln  
210  
<210> 103  
<211> 219  
<212> PRT  
<213> Homo sapiens  
  
<400> 103  
Ser Leu Ser Gly Gln Leu Phe Ala Leu Leu His Thr Leu Ser Ile Cys  
1 5 10 15  
Ile Ser Tyr Asn Val Tyr Arg Leu Tyr Gly Val His Ser Thr Trp Arg  
20 25 30  
Thr Phe Lys Thr Ile Ile Ala Leu Gly Phe Gly Ser Glu Phe Met Leu  
35 40 45  
Pro Cys Gln Ser Phe Leu Phe Val Thr Trp Pro Phe Lys Tyr Ala Ala  
50 55 60  
Thr Cys Asn Thr Gly His Ser Asp Pro Ile Arg Leu Met Ala Ser Cys  
65 70 75 80  
Ser Ser Arg Ser Leu Ser Val Cys Trp Tyr Ile Met Leu Gly Leu Cys  
85 90 95

Ser Arg Arg Arg Glu Ala Ser Gln Leu Ala Thr Gly Tyr Lys Ser Ile  
 100 105 110

Ala Glu Asn Asp Lys Arg Gln Gly Pro Ser Leu Gln Arg Ser Ala Lys  
 115 120 125

Lys Ile Leu Asn Val Tyr Lys Asp Leu Lys Arg Asn Ser Pro Arg Gin  
 130 135 140

His Tyr Ser Val Leu Asp Tyr Gly Tyr Thr Leu Leu Gln Leu Leu  
 145 150 155 160

Cys Ser Ser Glu Gln Lys Thr Glu Asp Phe Glu Met Ser Thr Thr Pro  
 165 170 175

Ala Pro Glu Tyr Asn Gly Thr Phe His Leu Phe Leu Val Thr Phe Ile  
 180 185 190

Phe Phe Cys Cys Trp Ile Pro Tyr Ile Ile Val Ser Ile Ser Gln Ala  
 195 200 205

Ser Thr Met Val Asn Ser Gly Trp Thr Leu Pro  
 210 215

<210> 104

<211> 208

<212> PRT

<213> Homo sapiens

<400> 104

Arg Thr Leu Tyr Trp Tyr Phe Tyr Phe Lys Phe Ser Ile Phe Gly Met  
 1 5 10 15

Ala Glu Cys Cys Tyr Lys Val Ser Arg Ser Pro Leu Pro Leu His Cys  
 20 25 30

Ala Asp Leu Leu Ser Ser Ile Gln Gly Thr Asp Leu Arg Asn Leu Gln  
 35 40 45

Val Val Thr Ser Cys Leu Val Phe Phe Leu Gly Arg Tyr Pro Ser Leu  
 50 55 60

Gln Thr Cys Arg Asn Leu Asn Leu Leu Pro Leu Thr Tyr Leu Val Pro  
 65 70 75 80

Cys Gly Leu His Phe Thr Val Cys Ala Asn Ser Leu Phe Ile Thr Ile  
 85 90 95

Leu Thr Leu Asp Ser Arg Ala Ser Pro Thr Ser Pro Phe Ser Val Thr  
 100 105 110

Leu Thr Phe Leu Leu Ser Val Thr Met Ser Asp Leu Leu Phe Ser Pro  
 115 120 125

Ile Phe Cys Pro Leu Gln Ile Leu Lys Pro Ser Phe Trp Phe Arg Pro  
 130 135 140

Leu Lys Gly Val Thr Gly Val Cys Tyr Pro Lys Val Val Pro Lys Ile  
 145 150 155 160

Ser Lys Leu Glu Lys Lys Thr Lys Asn Lys Lys Ile Pro Tyr Pro Ser  
 165 170 175

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Trp Met Phe Leu Lys Gly Phe Leu Gly Gln Val His Val Arg Ile Ala  
180 185 190

Gly Val Ser Leu Gln Lys Asp Phe Ser Trp Pro Ser Phe Val Thr Val  
195 200 205

<210> 105 -  
<211> 231  
<212> PRT  
<213> Homo sapiens

<400> 105

Met Lys Pro Val Leu Pro Pro Ala Lys Arg Thr Glu Ser Leu Asn Gly  
1 5 10 15

Met Val Asp Ala Ala Tyr Trp Thr Val Tyr Phe Ile Leu Ala Ala Pro  
20 25 30

Gly Ile Cys Val Ile Ser Leu Glu Met Phe Tyr Met Cys Leu Val Glu  
35 40 45

Leu Gln Asn Asn Thr Ser Leu Asn Ile Ser Cys Ile Thr Gly Ser Ile  
50 55 60

Gln Phe Ile His Asn Lys Val Ser Pro Val Leu Tyr Arg Arg Ile Tyr  
65 70 75 80

Lys His Ser Val Lys Ser Ile Asp Arg Ile Gly Asp Arg Gly Leu Lys  
85 90 95

Ile Lys Ile Asn Ala Phe Leu Val Leu Phe Gly Val Gly Lys Ser Asn  
100 105 110

Leu Phe Phe Met Leu His Arg Ser Gln Phe Phe Val Phe Phe Glu Ser  
115 120 125

Arg Pro Val Ile Gly Arg Cys Lys Glu Pro Lys Arg Lys Asn Gln Lys  
130 135 140

Pro Thr Ala Ser Phe Gln Asn Arg Ser Gln Lys Arg Lys Glu Tyr Glu  
145 150 155 160

Ser Ser Arg Ser Phe Asn Cys Ser Phe Ile Ile Ser Ser Arg Lys Arg  
165 170 175

Gly Cys Met Ile Val Ser Lys Thr Lys Glu Glu Thr Ala Lys Glu Arg  
180 185 190

Asn Val Gly Asn Leu Leu Val Glu Ala Met Thr Leu Leu Gly Glu Ile  
195 200 205

Leu Ser His Phe Leu Ser Ser Cys Phe Ser Ile Met Phe Phe Thr Leu  
210 215 220

Ser Ile Gln Tyr Lys Thr Leu  
225 230

<210> 106  
<211> 188  
<212> PRT  
<213> Homo sapiens

<400> 106

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Ser Glu Asp Leu Gln His Arg Val Lys Tyr Ala Arg Glu Gly His Ile  
1 5 10 15

Thr Phe Ile Phe Thr Phe Ile Leu Ile Tyr Phe Leu Ser Ile Asn Leu  
20 25 30

Phe Cys Phe Tyr Ile Ser Val Val Ala Gln Asn Ser Asn Cys Ser Lys  
35 40 45

Asn His Ser Gly Leu Asn Thr Gly Lys Ile Ser Phe Gly Thr His Asn  
50 55 60

Gly Leu Lys Asn Ser Cys Val Pro Phe Thr Gly Glu Ile Arg Lys Gly  
65 70 75 80

Ile Glu Lys Phe Pro Ile Pro Pro Asn Pro Ala Ser Pro Ile Pro Ile  
85 90 95

Ser Arg Thr Ser Phe His Leu Ile Ser Leu His Leu Gln Met Val Val  
100 105 110

Leu Asn Leu Gln Ile Asn Lys Pro Lys Thr Glu Ser Ile Ile Phe Ser  
115 120 125

His Leu Val Phe Pro Ser Asn Ser Leu Ile Ser Val Thr Cys Pro Ile  
130 135 140

Thr Leu Pro Gly Ile Gln Pro Pro Lys Gln Gly Leu Leu Pro Leu  
145 150 155 160

Gln Trp Thr Pro Gly Ile Gln Val Leu Leu Leu Ala Pro Lys Cys Pro  
165 170 175

Gln Cys Pro Val Leu Pro Asn Gln His Ile Gln Gln  
180 185

<210> 107

<211> 230

<212> PRT

<213> Homo sapiens

<400> 107

His Cys Asn Gly His Cys Arg Phe Ser Arg Leu Ser Pro Glu Gly Glu  
1 5 10 15

Trp Pro Pro Phe Lys Val Cys Ser Glu Glu Asn Thr Pro Gly Ser Arg  
20 25 30

Ala Ile Val His Lys Asp Ala Leu Gly Ser Val Val Leu Thr Asn Val  
35 40 45

Glu Thr Tyr Arg Ala Leu Val Ala Glu Ala His Ser Asn Gln Pro Lys  
50 55 60

Leu Gly Arg Arg Ala Gly Ala Gln Cys Ile Trp Glu Gly His Arg Leu  
65 70 75 80

Gly Ser Pro Ser Ser Ser Gly Pro Pro Ser Arg Met Ile Gly Leu Arg  
85 90 95

Pro Pro Ser Gly Ser Pro Arg Arg Gln Pro Ser Ser Glu Glu Ser Gly  
100 105 110

Asp Lys Arg Ser Ala His Leu His His Ser Leu Pro Glu Thr Arg Leu

115	120	125
Asn Cys Ile Ile Cys Phe Cys Pro Thr Cys His Lys Pro Thr Ile Trp		
130	135	140
Ser Asn Ala Arg Pro His Pro Arg Lys Thr Arg Pro Gln Pro Trp Ala		
145	- 150	155 160
Leu Glu Gly Leu Cys Tyr His Leu Pro His Ala Leu Gln Lys Ser Asp		
165	170	175
Glu Ser Ser Pro Ile Ile Pro Thr Leu Ser Leu Arg Ser Pro Trp Met		
180	185	190
Pro Arg Gly Arg Arg Phe Asn Met Gly Gln Lys Val Ala Thr Thr Glu		
195	200	205
Leu Leu Gly Ser Ser Pro Tyr Leu Leu Ser Leu Asp Leu Leu Pro Gly		
210	215	220
Leu Gln Arg Val Lys Ser		
225	230	
<210> 108		
<211> 178		
<212> PRT		
<213> Homo sapiens		
<400> 108		
Phe Arg Ser Lys Phe Ile Pro Val Gly Glu Leu Val Glu Val Glu		
1	5	10 15
Gln Gly Gln Arg Val Gln Val Glu Tyr Ser Asn Phe Lys Asn Leu Lys		
20	25	30
Ser Glu Thr Leu Gln Asn Leu Lys Leu Phe Glu His His Asp Thr Gln		
35	40	45
Arg Lys Tyr Ser Leu Asp Ser Arg Phe Leu Tyr Leu Glu Gly Ser Thr		
50	55	60
Lys Arg Tyr Asp Ile Asn Ile Pro Lys Phe Lys Asn Ile Asn Ser Lys		
65	70	75 80
His Phe Pro Gln Ala Phe Trp Ile Lys Asp Thr Gln Thr Gly Ile Arg		
85	90	95
Ser Trp Leu Pro Glu Glu Glu Thr Gly Glu Asp Ile Pro Val Val Ala		
100	105	110
Leu Met Lys Gly Trp Gly Pro Glu Asn Gln His Pro Leu Phe Gly Cys		
115	120	125
Phe Leu Leu Trp Arg Val Ala Leu Glu Gly Gly Pro Pro Phe Ile His		
130	135	140
Val Leu Ser Gly Arg Pro Phe Thr Leu Arg Gly Ala Ser Leu Pro Cys		
145	150	155 160
Leu Asp Phe Pro Gly Leu Cys Pro Leu Ser Ala Glu Val Lys Val Ser		
165	170	175
Gly His		

<210> 109  
<211> 237  
<212> PRT  
<213> Homo sapiens

<400> 109 -

Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Met Ser His Cys Ala Gly  
1 5 10 15

Arg Ser Leu Val Ser Phe Tyr Ser Ala Val Met Cys His Ile Thr Met  
20 25 30

Leu Pro Ser Met Ile Asp Cys Val Tyr Asn Thr Arg Pro Val Arg Ser  
35 40 45

Tyr Cys Thr Leu Leu Tyr Leu Phe Cys Val Glu Ile His Arg Tyr Leu  
50 55 60

Ala Leu Cys Tyr Ser Arg Arg Gln Arg Pro Ala Gln Gln His Gly Met  
65 70 75 80

Gln Ala Trp Gly Leu Glu Leu Thr Gly Cys Thr Thr Gly Pro Gly Val  
85 90 95

Arg Gln Pro His Arg Leu Gly Leu Arg Glu Cys Ile His Ala Val Cys  
100 105 110

Ala Arg Thr Arg Phe Ser Asp Arg Val Leu Ala Val Ser Leu His Met  
115 120 125

Thr Val Leu Ile Phe Glu Trp Ser His Val Phe Gly Leu Leu Asn Arg  
130 135 140

Met Phe Val Phe Ser Glu Lys Met Pro Ile Ala Ser His Leu Gln Leu  
145 150 155 160

His Gln Phe Arg Phe Arg Phe Glu Leu Lys Cys Asp Leu Ser Ile Gln  
165 170 175

Lys Lys Ser Ile Ser Thr Phe Gly Lys Ile Ser Arg Leu Lys Lys Thr  
180 185 190

Phe Arg Val Phe Lys Arg Thr Ser Ser Val Lys Ser Ser Ile Leu Lys  
195 200 205

Gly Cys Pro Ile Asn Lys Leu Leu Trp Asn Cys Phe Ile Ser Ala Leu  
210 215 220

Phe Leu Cys Gly Thr His Ser Ser Lys Thr Ala Glu Asp  
225 230 235

<210> 110  
<211> 221  
<212> PRT  
<213> Homo sapiens

<400> 110

Phe Phe Leu Phe Leu Ser Leu Ser Phe Ser Phe Cys Leu Lys Ile Met  
1 5 10 15

Lys Asn Ala Gly Ser Val Glu Arg Arg Lys Cys Pro Cys Pro Thr Ser  
20 25 30

Cys Arg Tyr Leu Ser Cys Phe Phe Ile Leu Leu Lys Ile Glu Leu Lys  
     35                        40                        45  
 Val Phe His Phe Leu Phe Phe Asn Phe Arg Gly Tyr Asn Gly Asp Ser  
     50                        55                        60  
 Gly Thr Asn Arg Lys Phe Val Phe Thr Arg Pro Val Lys Arg Val Phe  
     65                        70                        75                        80  
 Leu Leu Ile Pro Val Phe Val Ser Gly Cys Met Ala Ile Ala Ser Lys  
     85                        90                        95  
 Phe Phe Pro Leu Phe Pro Ser Pro Ile Thr Gln Arg Val Ser Ser Phe  
     100                       105                       110  
 Asn Thr Leu Glu Ser Ile Leu Leu Asp Ala Thr Thr His Met Cys Val  
     115                       120                       125  
 Asn Glu Asn Thr Asp Lys Lys Ser Leu Asn Ile Gly Asn Gly Val Ile  
     130                       135                       140  
 His Ala Phe Leu Thr Leu Ile Phe Leu Leu Phe Trp Ile Pro Phe His  
     145                       150                       155                       160  
 Val Ser Tyr Ile Tyr Pro Ile Tyr Phe Gln Asp Cys Val Ile Phe Tyr  
     165                       170                       175  
 Ser Ile Val Leu Thr Phe Phe Met Leu Ser Gln Leu Val Thr Tyr Tyr  
     180                       185                       190  
 Val Tyr Glu Leu Phe Leu Leu Leu Met Leu Lys Ile Ser Trp Asp Lys  
     195                       200                       205  
 Leu Leu Gly Val Leu Phe Glu Ser Phe Leu Gly Ile Lys  
     210                       215                       220  
 <210> 111  
 <211> 235  
 <212> PRT  
 <213> Homo sapiens  
 <400> 111  
 Phe Glu Asp Lys Phe Leu Leu Thr Val Val Ile Thr Arg Gly Leu Ile  
     1                       5                           10                       15  
 Ser Thr Leu Leu Glu Ser Leu Thr Tyr His Asn Phe Ser Met Leu Cys  
     20                       25                       30  
 Glu Gly Met Asn Ser Leu Thr His Leu Ile Met Thr Thr His Ile Met  
     35                       40                       45  
 Leu Leu Ile Gly Asn Asp Leu Tyr Glu Thr Tyr Arg Lys His Ile Thr  
     50                       55                       60  
 Ala Ser Gln Met Thr Pro Ile Ser Pro Ile Ala Val Ser Asp Lys Phe  
     65                       70                       75                       80  
 Glu Ser Gly Pro Met His Leu Cys Trp Ala Pro Gln Asn Lys Glu Val  
     85                       90                       95  
 Asp Tyr Leu Arg Ser Thr Thr Leu Ala Ile Ser Pro Leu Asn Ile Lys  
     100                      105                       110

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Leu Ile Cys Pro Ile Ala Pro Pro Ser Ser Gly Pro Gly Leu Trp Ile  
115 120 125

Gly Met Thr Tyr Leu His Ile Gln Phe Cys Lys Ser Leu Gly Ile Ile  
130 135 140

Gln Asp Gly Arg Ile Asn Gly Gln Leu Lys Leu Phe Leu Leu Ser His  
145 150 155 160

Pro Phe Gln Cys Phe Leu Pro Trp Ser Leu Leu Ile Ile Ser Met Leu  
165 170 175

Phe Asn Ile Tyr Leu Glu Glu Phe Met Ala Val Ile Thr Ile Met Ala  
180 185 190

Thr Ile Phe Tyr Tyr Leu Cys Met Pro Gly Ile Val Leu Ser Ala Ser  
195 200 205

Gly Ile Arg Ser Cys Lys Gly Leu Val Thr Phe Tyr Arg Trp Asp Trp  
210 215 220

Asp Ser Asp Val Ser Cys Leu Phe Lys Ser Ile  
225 230 235

<210> 112

<211> 134

<212> PRT

<213> Homo sapiens

<400> 112

Ser Ser Pro Val Val Cys Trp Gln Ser Leu Ala Phe Leu Ser Leu Trp  
1 5 10 15

Lys Tyr His Ser Ile Ser Val Leu Ile Ser Thr Trp Cys Ser Ser Cys  
20 25 30

Val His Val Cys Leu Gln Ile Ser Pro Phe Tyr Lys Asp Thr Val Ile  
35 40 45

Leu Asp Ser Gly Ser Phe Arg Pro His Leu Ile Phe His Lys Asp Pro  
50 55 60

Ile Ser Lys Cys His Ile Leu Trp Tyr Trp Gly Leu Leu Lys His Ile  
65 70 75 80

Asn Phe Arg Glu Thr Asn Leu Asn Leu Gln Tyr Thr Ser Arg Met Glu  
85 90 95

Glu His Gly Ile Arg Leu Ser Gln Thr Gln Leu Leu Thr Phe Trp Phe  
100 105 110

Ser Ser Pro Gly Gln Glu Thr Pro Ser Ala Gly Lys Leu Glu Thr Trp  
115 120 125

Lys Thr Gly Leu Lys Thr  
130

<210> 113

<211> 229

<212> PRT

<213> Homo sapiens

<400> 113

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His Thr Asp Thr His Ser His Ile His Thr Gln Ser Leu Ile Lys Tyr  
1 5 10 15

Met Ile Ile Phe Met Cys Lys Ser Phe Gln Gln Ile Ile Ile Phe Tyr  
20 25 30

Ile Arg Ala Cys Tyr Lys Glu Lys Ile Tyr Gln Phe Glu Lys Gly Lys  
35 40 45

Pro Leu Ser Arg Tyr Cys Phe Ile Arg Thr Val Val Ser His Ile Ile  
50 55 60

Ser Lys Leu Leu Met Lys Tyr Lys Thr Phe Thr Ile Ile Lys Ser Leu  
65 70 75 80

Lys Arg Thr Lys Asn Lys Leu His Lys Leu Lys Ser Ser Val Ala Asn  
85 90 95

Met Met Phe Cys Glu Leu Leu Ile Val Tyr Val Cys Ile Tyr Ala Trp  
100 105 110

Tyr Leu Pro Gly Ile Cys Phe Met Phe Leu Arg Pro Gln His Cys Cys  
115 120 125

Lys Arg Ile Val Phe Pro Leu Leu Tyr Asn Tyr Phe Asp Ile Ser Tyr  
130 135 140

Asn Leu Pro His Glu Tyr Gln Thr Phe Tyr Arg Lys Tyr Leu Ile Pro  
145 150 155 160

His Ser Leu Ser Pro Ala Ala Phe His Val Cys Leu Val Lys Ala Ile  
165 170 175

Val Thr Lys Leu Pro Phe Phe Lys Glu Ala Ser Val Asn Gln Tyr Ile  
180 185 190

Ser Leu Ser Leu Phe Phe Tyr Val Cys Leu Ser His Thr Asn Thr Gln  
195 200 205

Ala Asn Ile Tyr Ile Tyr Ile Phe Asn Ile Thr Asp Ser Phe Leu Ala  
210 215 220

Val Leu Ser Ile Ile  
225

<210> 114

<211> 189

<212> PRT

<213> Homo sapiens

<400> 114

Ser Leu Leu Asn Leu Leu Phe Asn Met Asn Ile Ala Ser Leu Ala Leu  
1 5 10 15

Phe Val Leu Thr Leu Tyr Ile Thr Phe His Leu Phe Ile Leu Ile Cys  
20 25 30

Leu Tyr Ile Ser Ala Phe Leu Ile Gly Asn Ile Leu Ser Leu Ser Phe  
35 40 45

Tyr Pro Ile His Leu Leu Asp Phe Glu Val Phe Lys Leu Phe Val Phe  
50 55 60

Asn Val Asn Met Tyr Met Ile Gly Phe Lys Phe Thr Ser Trp Leu Val

65 70 75 00196US1.ST25  
 Phe Ser Val Tyr Ser Ile Tyr Tyr Ser Leu Phe Pro Phe Ser Ser Met  
   85               90               95  
 Leu Ser Phe Gly Leu Ile Ile Leu Leu Lys Ile Phe Arg Ile Ser Phe  
   100    -          105               110  
 Val Val Leu Phe Trp Leu Ile Cys His Leu Arg Leu Leu Ile Thr Val  
   115               120               125  
 Ile Phe Gln Val Thr Leu Tyr His Phe Val His Val Tyr Lys Thr Leu  
   130               135               140  
 Gln Gln Cys Thr Ser Ile Leu Cys Leu Leu Asn Phe Arg Leu Leu Leu  
   145               150               155               160  
 Ser Ser Tyr Ile Leu Phe Leu Phe Pro Thr Tyr Val Ile Arg Pro Ile  
   165               170               175  
 Leu His Cys Phe Cys Val Cys Phe Lys Lys Pro Ser Phe  
   180               185  
 <210> 115  
 <211> 242  
 <212> PRT  
 <213> Homo sapiens  
 <400> 115  
 Glu Glu Asn Ser Met Lys Ala Asp Lys Gly Arg Thr Glu Val Asn Gln  
   1                5                10                15  
 Cys Ser Ile Asp Leu Gly Glu Asp Asp Met Glu Phe Gly Glu Asp Asp  
   20               25               30  
 Ile Asn Phe Ser Glu Asp Asp Val Glu Ala Val Asn Ile Pro Glu Ser  
   35               40               45  
 Leu Pro Pro Ser Arg Arg Asn Ser Asn Ser Asn Pro Pro Leu Pro Arg  
   50               55               60  
 Cys Tyr Gln Cys Lys Ala Ala Lys Val Ile Phe Ile Ile Ile Phe Ser  
   65               70               75               80  
 Tyr Val Leu Ser Leu Gly Pro Tyr Cys Phe Leu Ala Val Leu Ala Val  
   85               90               95  
 Trp Val Asp Val Glu Thr Gln Val Pro Gln Trp Val Ile Thr Ile Ile  
   100              105              110  
 Ile Trp Leu Phe Phe Leu Gln Cys Cys Ile His Pro Tyr Val Tyr Gly  
   115              120              125  
 Tyr Met His Lys Thr Ile Lys Lys Glu Ile Gln Asp Met Leu Lys Lys  
   130              135              140  
 he Phe Cys Lys Glu Lys Pro Pro Lys Glu Asp Ser His Pro Asp Leu  
   45              150              155              160  
 ro Gly Thr Glu Gly Gly Thr Glu Gly Lys Ile Val Pro Ser Tyr Asp  
   165              170              175  
 er Ala Thr Phe Pro Ser Phe Gly Lys Pro Thr Val His Asn Thr Arg  
   180              185              190

Asn Lys Arg Arg Phe Leu Phe Asn Gly Pro Thr Ile His Cys Gln Thr  
 195 200 205

Ile Pro Phe Gln Ala Lys Val Leu His Thr His Ala Leu His His Lys  
 210 215 220

Val Asp Lys Tyr Ile Glu Glu Ala Gly Thr Gly Val Phe Pro Lys His  
 225 230 235 240

Gly Leu

<210> 116

<211> 206

<212> PRT

<213> Homo sapiens

<400> 116

Ser Gly Lys Thr Thr Pro Arg Asn Arg Leu Leu Leu Pro Pro Cys Lys  
 1 5 10 15

Pro Glu Ala Gln Leu Leu Ser Leu Glu Asn Arg Lys His Asn His Gly  
 20 25 30

Tyr Ser Glu Gly Gln Gln Val Leu Cys Lys Trp Asp Cys Gly Gly  
 35 40 45

Gln Trp Glu Gly Phe Trp Gly Ser Leu Ser Cys Leu Cys Asn Trp Ala  
 50 55 60

Met Gln Pro Cys Lys Cys Gln Glu Thr Leu Asn Lys Thr Glu Pro Glu  
 65 70 75 80

Ala Asn Lys Lys Pro Ala Phe Thr Cys Ser Phe Pro Phe Cys Asn Glu  
 85 90 95

Ile Ser Ile Cys Thr Leu Ile Trp Pro Thr Ile Pro Gly Glu Ile Ser  
 100 105 110

Trp Asp Val Ser Phe Val Thr Leu Asn Phe Leu Val Pro Gly Leu Val  
 115 120 125

Ile Val Ile Ser Tyr Ser Lys Ile Leu Gln Val Cys Phe Leu Gln Val  
 130 135 140

Leu Pro Leu Asn Phe Thr Gln Ala Trp Gly Tyr Phe Cys Asn Leu Arg  
 145 150 155 160

Ile Trp Gly Arg Arg Thr Pro Lys Ser Ser Arg Gln Leu Asn Leu Asp  
 165 170 175

Ser Leu Pro Arg Ser Thr Thr Leu Arg Lys Glu Arg Ile Phe Leu Glu  
 180 185 190

Val Ile Ser Leu Leu Cys Phe Leu Leu Ile Thr Lys Val Ile  
 195 200 205

<210> 117

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

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<221> misc\_feature  
<223> Peptide substrate

<400> 117

Ala Pro Arg Thr Pro Gly Gly Arg Arg  
1 5

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